UNIVERSIDAD COMPLUTENSE DE MADRID
FACULTAD DE FILOLOGÍA

TESIS DOCTORAL

Negation, indefinites, and polarity in early Greek and Indo-Iranian: a typological and comparative approach

(Negación, indefinidos y polaridad en griego antiguo e indo-iranio: un estudio tipológico y comparativo)

MEMORIA PARA OPTAR AL GRADO DE DOCTOR

PRESENTADA POR

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DECLARACIÓN DE AUTORÍA Y ORIGINALIDAD DE LA TESIS PRESENTADA PARA OBTENER EL TÍTULO DE DOCTOR

D./Dña. JUAN EUGENIO BRIGEÑO VILLALOBOS,
estudiante en el Programa de Doctorado EN ESTUDIOS DEL MUNDO ANTIGUO
de la Facultad de FILOLOGÍA de la Universidad Complutense de Madrid, como autor/a de la tesis presentada para la obtención del título de Doctor y titulada:

NEGATION, INDEFINITES, AND POLARITY IN EARLY GREEK AND INDO-IRANIAN: A TYPOLOGICAL AND COMPARATIVE APPROACH

y dirigida por: JUAN ANTONIO ÁLVAREZ-PEDROSA NÚÑEZ Y EUGENIO RAMÓN LUJÁN MARTÍNEZ.

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Esta DECLARACIÓN DE AUTORÍA Y ORIGINALIDAD debe ser insertada en la primera página de la tesis presentada para la obtención del título de Doctor.

For my parents, Gladys and Pedro, to whom I owe everything.

Acknowledgements

There is not enough space in several books to openly show my gratitude to all those who supported me through this long journey called "writing a dissertation" and thanks to whom I am writing right now these truly heart-felt words. I must say it has been a challenging journey, but nevertheless, fascinating. Thus, in spite of said handicaps, I will endeavor in this small section to enumerate all those who I believe deserve written mention, since, as the poet said, *verba volant, sed scrīpta mānent.*

First thing first and with my parents' excuse, I must first express my gratitude to *that* person who was literally there for me all the way from the start until the last word written in these pages. I will be forever grateful to my partner Carmen Avendaño, who supported me through thick and thin, even though sometimes I made her face hazardous times. Without her and her unconditional love, cheering, and counseling, none of this would have been possible. To her, I dedicate these pages.

Secondly, I cannot delay any further mentioning my parents, to whom I owe everything. Thanks to them I ended up studying abroad far from home, but with their hearts and souls always present, which have always led me through the right tracks of life. My eternal gratitude to them and to them I dedicate these pages.

I must also make due mention of my family: to my sisters Carmen and Marcela Briceño, to my brothers Pedro and Pablo Briceño, to my niece Sofía and nephew Roberto Donoso, and, finally, to my brothers-in-law Ulises Hidalgo and Roberto Donoso, to them I also dedicate these pages.

I must also show my gratitude for their unparalleled and constant support to my other 'Spanish' family: Javier Avendaño P., María José María, Francisco Folgoso, Luis Avendaño, Javier Avendaño, Magalí Rey, Elena Hernández, Vicente Folgoso, Manuel Folgoso, Ana Trashorras, Rafael de María, Belén de María, Rafael de María I., Blanca Alvalad, Paula Quintanilla, and Jon Ocio.

Life without friends is no life, so I hasten to turn to that important group. I will be forever grateful to Pablo Rodríguez, Álvaro Cancela, Marco Enia, Sara Sánchez de Molina, Marcelo Morán, Gonzalo Jerez, Daniel Utzinger, Andrea Wilkendorf, Nicole Wilkendorf, Verónica Orqueda, Jessica Barros, Juan Pablo Morales, Fabián Romero, Rachele Pierini, Belén Salmerón, Melodía García, Sara Santana, Vera Wolkowicz, Erika Marsal, Alexandra

Llado, Álvaro Ruiz, Melanie Trüssel, Tatiana Giraldo, Pedro Redondo, Marta Martínez, Carlos Martínez, Eduardo Ezkurra-Fernández, Ángel López, Marina Solís de Ovando, Sandra Cruz, Marta Lezcano, Inmaculada Hernández-Tejero, Clara de Jorge, Soraya Planchas, Silvia Maiorana, Samuel Jara, Nicolás Peinado, Borja Camacho, Pablo Lomas, Julia Aguilar, María Flores, Nacho Sanz, Daniel Ayora, Macarena Sánchez, Alejandro Abad, Juan Piquero, Paloma Guijarro, Iván Andrés, Natalia Elvira, Marta Vicente, Macarena García. My Persian *alter ego* deserves special mention, Milad Abedi, and the rest of the internationals: Kate Bellamy, Anastasia Ionova, Chams Bernard, Stefan Norbruis, Xander Veertegal, Michele Bianconi, Francesco Burroni, Axel Palmer, Matilde Garré, Laura Nastasi, Dennis Fucci, Luka Repanšek, Marta Campano, Aljoša Šorgo, Oscar Billing, and Guglielmo Inglese.

Finally, I would like to express my gratitude to my two supervisors, Juan Antonio Álvarez-Pedrosa and Eugenio Luján who, despite my constant delays and tardiness, knew, nevertheless, how to keep me on the right track with their constant support and counsel. To them, I also dedicate these pages. Without them, this dissertation would have never been possible.

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SUMMARY

In this dissertation I intend to provide a full description of indefinites and their polarity distribution in early Greek and Indo-Iranian, focusing in their special connection with negation and other non-veridical semantic contexts. I concentrate in how semantic contexts can influence the distribution of indefinites and how can they affect their semantic functions. The main goal of this dissertation is to assess what are the means these languages display to convey grammatically the expression of indefiniteness. I mainly follow Haspelmath (1997)'s semantic map of functions and the studies of Giannakidou (1998) regarding semantic contexts and non-veridicality that activate different types of indefinite pronouns, adverbs, and other morphological elements. I treat indefinites in other IE languages for the sake of *comparanda* and also deal with indefinites in Achaemenid Elamite that servers as a reflection of Old Iranian morphology and syntax.

This dissertation is divided into six chapters. The first one is the introduction that lays down the typological framework that will be used through the study of indefinites, negation, and polarity. The next two chapters deal with early Greek and Indo-Iranian data respectively. The fourth chapter provides a general study of indefinites in other early IE languages, and, finally, in the last chapter, I draw some general conclusions out the analysis and study performed through the dissertation.

In the Greek chapter, I propose that the Greek negative marker may derive from an indefinite stem plus an instrumental suffix, as in **ne-$h_2$oyu-k^wi-h_1*, triggering negative attraction and, ultimately, negative absorption between standard negation and the interrogative-based indefinite. Alternatively, an instrumental *-t* might be behind the Geek negator (**ne-$h_2$oyu-k^wi-t*) given that the analysis of the nominals Gr. οὐτιδανός and Lat. *nēquitia* point in that direction and that it is a common IE strategy to employ a variety of instrumental suffixes in the creation of adverbs of manner.

Specific (existential) indefinites only amount 20% of the occurrences of τις, whereas the other 80% reflects a polarity distribution, given that most cases of τις are attested in non-veridical contexts such as negation, conditionals, and interrogatives. Other *specific* indefinites are ὅς τε and εἷς. Non-specific indefinites are irrealis indefinites κε τις, free-choice τις, ὅς τις and ὅς κε, and negative polarity adverbs πῃ, πως, and πω. The negative polarity sensitivity of the latter is provided by the IE instrumental *-h_1*. Other indefinites show indifference to

negation such as ποτε, ποθί, and ποθέν or rejection of negation such as που. Finally, early Greek attests a negative indefinite by the univerbation of the scalar focus particle οὐδέ (cf. οὔτε) and the numeral one εἷς.

In the Indo-Iranian chapter, I show that examples of specific indefinites are almost non-existent: some of the few cases are Ved. *káś cid*, Ved. *kū́cit* OP *aiva*. The first two might represent examples of diachronic extension –or weakening–of the indefinite functions from free-choice to specific (existential) indefinites. To the contrary, Indo-Iranian non-specific strategies are abundant. Nominal free-choice indefinites are based on the interrogative stem **ka*- plus IIr. **čid*. Other strategies are the indefinite (free-) relatives I-Ir. **ya- ka/ci*- along with particle IIr.**ča*, the indefinite relatives IIr. **ya-cid*, the reduplication of the relative/interrogative-indefinite stems, and the use of relative-correlative constructions (cf. Hittite "indeterminate" correlative constructions). Finally, also *sama*- can express free-choice. For negative polarity indefinites, Indo-Iranian uses the interrogative stem IIr. **ka*- (concretely Vedic) and the numeral one plus IIr. **čaná*. Also Ved. *káś cid* and OP *kašci* can work as polarity items. Another recurrent means of expression of negative polarity is the use of the bare interrogatives along with negation, especially in Avestan. Indo-Iranian also attests negative indefinites: -h_1 is again connected with the renewal and creation of new negative markers, as in the reinforced negative **ná-íh$_1$-t* > Av. *nōiṯ*, OP. *naiy*, and in the new negative indefinites/adverbs such as **ne-íh$_1$-k^{w}i-h$_1$*- > Av. *naēcī*- and **ne-k^{w}i-h$_1$*- > Ved. *nákī*-. Indefinites adverbs follow the same patterns as indefinite pronouns regarding the use of particles for marking free-choice and polarity functions along with relative/interrogative-indefinite stems and reduplication.

As regards other IE languages Latin proves to have a rich indefinite framework that utilizes several prefixes and suffixes added to the interrogative stem **k^{w}i*-. Hittite also has different series of indefinites, although the use of particles is more limited. In turn, Armenian shows a strict polarity distribution with two distinct indefinite series: polarity items (*ok*‘/ *inč*‘) and non-specific/existential (*omn*/*imn*). Gothic happens to use as well particles for marking negative polarity items (-*hun*) and free-choice formations (-*uh*). Notably, Latin, Hittite, and Gothic all use the bare interrogative as polarity item along with non-veridical contexts. Another common feature among IE languages is the use of particle **k^{w}e* (= **ke*) in conditionals and indefinite relative clauses. Finally, instrumental -h_1 makes morphological elements prone to be connected with non-veridical contexts such as negation, conditionals and

interrogatives. -h_1 not only interacts with Latin indefinites adverbs/conjunctions such as *quī*, *quō*, and *quā*, but it is also invested in formations of the NEG- $k^w i$- type, the inherited IE prohibitive maker, and other negative markers (Lat. *nē*/ *nī*) that show polarity sensitivity to non-veridical contexts. I also study the investment of instrumental suffixes in the formation of conditional conjunctions and the reinforcement of other IE negative marker such as Hitt. *natta* or Pal. *nit*.

Finally, in the Elamite chapter, I show that Elamite (correlative) negation and indefinites reflect in many respects Old Iranian (not exclusively Old Persian) influence over Achaemenid Elamite. Examples are the gradual reduction of negatives into a sole negative marker, the creation of a negative coordinator used in correlative negation and fashioned after an Old Iranian coordinator: *a-ak in-ni*, the use of numeral as an indefinite determiner (*specific* indefinite) or the borrowing of elements such as El. *kaš* with the function of a resumptive pronoun, which was originally an Old Persian indefinite.

RESUMEN

Esta tesis doctoral se centra en el estudio de los indefinidos y su polaridad–entendida como deficiencia semántica– en griego homérico e indo-iranio, que apunta a la especial conexión de estos con la negación y otros similares contextos semánticos tales como las condicionales e interrogativas. Nos centramos en cómo los contextos semánticos pueden influir sobre la distribución sintáctica de los indefinidos y sobre las funciones semánticas desempeñadas por estos. De esta manera, el principal objetivo de esta tesis es evaluar cuáles son los medios por los cuales estas lenguas despliegan gramaticalmente la expresión de lo indefinido. Seguimos, principalmente, los estudios de Haspelmath (1997) sobre las funciones semánticas y los estudios de Giannakidou (1998) sobre la teoría de la no-veracidad. A su vez, tratamos los indefinidos en otras lenguas indoeuropeas para obtener una visión comparativa más asentada y también los casos de indefinidos en elamita aqueménida que sirve muchas veces de reflejo de las morfosintaxis del iranio antiguo.

Esta tesis doctoral está dividida en seis capítulos. El primero es la introducción donde planteamos cuáles son los fundamentos tipológicos utilizados para el estudio de los indefinidos y la negación. Los siguientes dos capítulos se centran en los datos del griego e indo-iranio según el corpus que hemos utilizado. El cuarto capítulo provee un estudio general de los indefinidos en otras lenguas indoeuropeas tempranas y, finalmente, en el último capítulo sacamos algunas conclusiones a partir del análisis y estudio realizados a lo largo de la tesis.

En el capítulo de griego, proponemos que el marcador negativo se deriva de la base interrogativa más la desinencia de instrumental *-h_1* (**ne-$h_2$oyu-k^wi-h_1*), provocando una atracción negativa y, por último, una absorción negativa entre la negación estándar y la base pronominal. Alternativamente, un instrumental *-t* podría estar detrás del marcador negativo griego(**ne-$h_2$oyu-k^wi-t*), dado que el análisis de las formaciones nominales Gr. οὐτιδανός and Lat. *nēquitia* apuntan en esa dirección y que es una estrategia muy común entre las lenguas indoeuropeas utilizar los sufijos instrumentales en la creación de adverbios de modo

Los indefinidos específicos existenciales solo representan el 20% de los casos de τις, mientras que el otro 80% muestra una distribución de acuerdo a la polaridad, dado que la mayoría de ejemplos de τις están atestiguados en contextos no-verídicos tales como la negación, las condicionales y las interrogativas. Otros indefinidos específicos son ὅς τε y εἷς.

Otros ejemplos de indefinidos *no-específicos* son los indefinidos *irreales* κε τις, los de free-choice (libre elección) τις, ὅς τις y ὅς κε y los términos de polaridad negativa πῃ, πως y πω. Estos últimos muestran una especial sensibilidad a la polaridad (negativa) provista por el instrumental indoeuropeo -h_1. Otros indefinidos muestran un tipo de indiferencia a la negación como es el caso de los adverbios ποτε, ποθί, and ποθέν o incluso el rechazo a los contextos negativos como es el caso del adverbio modal που. Finalmente, el griego atestigua un indefinido negativo que es el resultado de la univerbación entre la partícula focal οὐδέ (cf. οὔτε) y el numeral uno εἷς.

En el capítulo de indo-iranio mostramos que los ejemplos de indefinidos específicos son muy escasos: algunos ejemplos son véd. *káś cid*, véd. *kū́cit* y ap. *aiva*. Los dos primeros representan una "extensión diacrónica" –o debilitamiento– de las funciones indefinidas partiendo de valores free-choice hacia valores indefinidos *específicos* o existenciales. Por el contrario, el indo-iranio muestra abundantes métodos para la expresión de indefinidos *no-específicos*. Los indefinidos nominales free-choice surgen a partir de la combinación de la base interrogativa **ka*- más la partícula **čid*. Otros métodos de expresión de indefinidos free-choice son los indefinidos relativos i-ir. **ya-ka/ci*- junto con la partícula *ča, el indefinido relativo iir. **ya-čid*, la reduplicación de la base relativa/interrogativa-indefinida y el uso de las construcciones relativas-correlativas (cf. las construcciones correlativas "indeterminadas" del hitita). Finalmente, el pronombre *sama*- también puede expresar valores free-choice. Para los términos de polaridad negativa el indo-iranio utiliza la base interrogativa junto a la partícula iir. *čana*. También los indefinidos véd. *káś cid* y ap. *kašci* pueden funcionar como indefinidos de polaridad negativa. Otra estrategia es el uso de la base interrogativa junto con la negación (u otros contextos no-verídicos), que es especialmente frecuente en avéstico. El indo-iranio también atestigua indefinidos negativos, en los que la desinencia -h_1 también se ve involucrada en la renovación y creación de nuevas formas negativas, como es el caso del marcador negativo **ná-íh$_1$-t* > Av. *nōiṯ*, OP. *naiy* y el de los adverbios/pronombres indefinidos *ne-íh$_1$-k^{w}i-h$_1$*- > Av. *naēcī*- and **ne-k^{w}i-h$_1$*- > Ved. *nákī*-. Los adverbios indefinidos siguen los mismo patrones que los pronombres indefinidos en lo que atañe al uso de partículas para marcar las funciones de free-choice y de polaridad negativa junto con las bases pronominales.

En lo que respecta a otras lenguas indoeuropeas, el latín despliega una gran variedad de prefijos y sufijos que añade a la base interrogativa para marcar las diferentes funciones semánticas de los pronombres indefinidos. Por su parte, el hitita también posee

diferentes series de indefinidos, aunque el uso de partículas para llevar a cabo tal diferenciación entre indefinidos está más limitada. El armenio muestra una distribución de polaridad bastante estricta con dos diferentes series de indefinidos, una para los términos de polaridad (*ok‘*/ *inč‘*) y la otra para indefinidos existenciales (*omn*/*imn*). El gótico también hace uso de partículas para marcar las diferentes funciones: *-hun* para los términos de polaridad negativa y *-uh* para los indefinidos free-choice. Es digno de destacar que el latín, el hitita y el gótico, al igual que el griego y, en cierta medida, el indo-iranio, hacen uso de la base interrogativa simple (i.e. sin partícula) *$*k^{w}i$/*o*- como términos de polaridad negativa, estrictamente en presencia de contextos semánticos de no veracidad. Otro rasgo común en las lenguas indoeuropeas es el uso de la partícula *$*k^{w}e$ (*=*ke*) en condicionales y oraciones relativas indefinidas. Finalmente, se ha de destacar que el instrumental *-h_1* hace que elementos morfológicos sean más proclives a estar conectados con contextos semánticos afectivos o de no-veracidad, tales como la negación, las condicionales y las interrogativas. *-h_1* no solo interactúa con las conjunciones adverbiales del latín, como por ejemplo *quī*, *quō* y *quā*, sino que también está presente en las formaciones del tipo NEG-*$k^{w}i$*-, en los marcadores prohibitivos heredados y en otros marcadores negativos reforzados como el lat. *nē*/ *nī* que muestran un clara tendencia a estar presentes en contextos semánticos no-verídicos. También estudio el uso de los sufijos instrumentales para la formación de nuevas conjunciones condicionales y en el refuerzo de marcadores negativos como el hitita *natta* y el palaico *nit*.

Finalmente, en el capítulo de elamita, mostramos que la negación (correlativa) y los pronombres indefinidos reflejan en muchos casos la influencia del iranio antiguo (y no exclusivamente del antiguo persa) sobre el elamita aqueménida, una de las lenguas administrativas del imperio aqueménida. Ejemplos de ello son la reducción gradual de los marcadores negativos hacia un única particular negativa, la creación de un coordinador negativo, *a-ak in-ni*, principalmente utilizado en correlaciones negativas y modelado a partir de coordinadores negativos del iranio antiguo (cf. a.av./ av.r. *naēδa*/ *naēda*), el uso del numeral uno como un indefinido existencial o elementos pronominales tales como elam. *kaš*, pronombre resumptivo a partir del indefinido del antiguo persa.

ABBREVIATIONS

Languages

AchElam.	Achaemenid Elamite
Akk.	Akkadian
Aram.	Aramaic
Arc	Arcadian
Arm.	Armenian
Boeot.	Boeotian
Dor.	Dorian
El.	Elamite
Go.	Gothic
Gr.	Greek
Hitt.	Hittite
HLuw.	Hieroglyphic Luwian
Hom.	Homeric Greek
IE.	Indo-European
IIr.	Indo-Iranian
Ion-Att.	Ionic-Attic
Lat.	Latin
Lesb.	Lesbian
MP.	Middle Persian
MG	Modern Greek
NB	New Babylonian
NP	New Phrygian
NWGr	North West Greek
OAv.	Old Avestan
OCS	Old Church Slavonic
OIrish.	Old Irish
OIran.	Old Iranian
OHG	Old High German
ONord.	Old Nordic

OP.	Old Persian
ORuss.	Old Russian
Osc.	Oscan
Pamph.	Pamphilian
Parth.	Parthian
PA	Proto-Anatolian
PIE	Proto-Indo-European
PIt.	Proto-Italic
Class. Skt.	Classical Sanskrit
Thess.	Thessalian
Toch.	Tocharian
Umbr.	Umbrian
Ved.	Vedic
YAv.	Young Avestan

Texts and Authors

Il. = Iliad

Od. = Odyssey

Pl. = Plautus

RV = *Rig-Veda*

V = *Videvdad*

Y = *Yasna*

YH = *Yasna Haptanhaiti*

Other common abbreviations

nom. =nominative

voc. = vocative

gen. = genitive

acc. =accusative

dat. = dative

abl. = ablative

instr. = instrumental

loc. =locative

DN = double negation

FCI = free-choice item

IP = indefinite pronoun

NEG = negative marker

NC = negative concord

NI = negative indefinite

NPI = negative polarity items

NQ = negative quantifier

PI = polarity item

SOV = subject object verb

SN = standard negation

SVO = subject verb object

V = verb

VO = verb object

VP = verbal phrase

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CHAPTER 1: Greek indefinites and polarity

CHAPTER 1: Introduction

1. Introduction

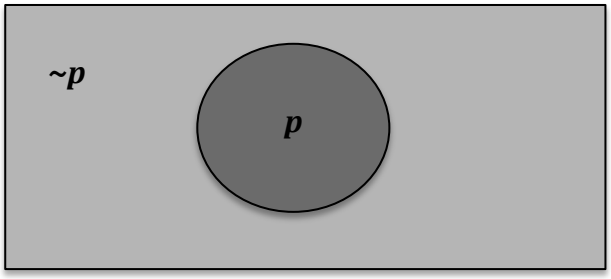
The topics of this dissertation are negation, indefinites, and polarity, which up to recent years have been extensively discussed in a variety of modern languages. Here I set out to engage such discussion in some of the earliest attested Indo-European (IE) languages. In this chapter I will lay down the objectives and the theoretical framework, on which I will base the analysis of the languages chosen for my study. It is due to say that there has been plenty of studies focused on negation in early IE languages such as Latin, Ancient Greek, early Germanic, etc. However, most of them –for not saying all of them– do not consider other semantic contexts that activate the same elements as negation, other related phenomena such as the relationship between negation and indefinites (not in univerbation with negation), or, finally, the assessment of those semantic contexts where negation cannot be present and of those elements that are actually excluded from negative contexts. Therefore, I deem necessary a reevaluation of the data taking into account all the aformentioned considerations.

1.1. Objectives

Negation can be defined as a syntactical phenomenon in which a sentential element or an entire proposition is negated by means of a lexical particle, a word, or an expression. According to propositional logic, negation is an operator that reverses the truth value of a proposition: if *p* is true, then **~***p* is false and vice-versa, see Figure 1. According to Givón (2001: 369), neg-assertion occupies the extreme end on the scale of the old Aristotelian propositional modalities (presupposition > Realis (R)-assertion > Irrealis (IRR)-assertion > Negation (NEG)-assertion)[1].

[1] For more information about negation and logic, cf. Horn (2001: 1-96).

Figure 1. Negation in set theory and its truth values



p	~p
t	f
f	t

Horn (2001: xii) affirms that negation is a universal category since all human systems of communication contain a representation of propositional negation. Thus, one of the most important features of negation is its markedness that sets a contrast between affirmation and negation. This markedness is carried out in various ways by the languages of the world. In the same line, Greenberg (1966) has observed that negation typically receives an overt expression, while affirmation usually has zero expression. Crosslinguistically, negation functions as a syntactic operator that affects a specific sentential perimeter upon which it exerts certain effects [2]. Concretely, in this study I will focus on the distribution of syntactic units whose function is determined by negation and other semantic contexts.

Otto Jespersen with his seminal book entitled *Negation in English and other languages* (1917) is often considered a pioneer in the studies of negation. Another paramount work that would eventually influence the descriptive typology of negation in the next couple of decades is Klima's paper "Negation in English" (1964). In the last thirty years, there has been a raising amount of literature treating all aspects of negation in the languages of the world. Moreover, Van Gelderen (2009, 2011), Willis *et al*. (2013), Visconti and Hansen (2014), have widened their scope dealing with other non-IE languages that have enforced a remodeling of previous typological preconceptions. In this light, it is my belief that these new crosslinguistic findings on syntax and morphology of negation should be applied to the study of early IE languages that lack a systematic and consistent, up-to-date study of negation within these parameters. Therefore, the main goal of this study is to make a thorough description of negation

[2] It has been assumed that negation has a closer relationship with the verbal finite form. There are negative constructions, though, that do not qualify as sentential, since the scope of negation only applies to a syntactic segment of non-verbal nature.

from a typological perspective in the three IE branches that I have selected for my study.

Through my analysis, I will consider not only negation and its multiple expressions, but also indefinite pronouns and adverbs that either fuse with the negative particle or interact in one way or the other with negators. Moreover, there are several other syntactic phenomena such as negative concord, negative quantification, gapping, Neg-Raising, polarity etc. that have not been dealt with in early IE languages. I especially intend to provide a full description of the latter in the hope that the study of polarity will provide some new insights about the true nature of negation and its relationship with indefinites. My approach seeks to apply the syntactic descriptions provided by recent studies to the early IE languages studied here, as well as to contribute to the study of morpholohy and, in some instances, to the derivation of forms. From an IE perspective, the study of the morphology of negative markers and related particles can greatly benefit from the study of syntax, which is invested in the grammaticality of complex syntactic objects and in the constraints on the wellformedness of such objects. As observed by Mendoza (1998: 143 ff) and Keydana (2018: 2195) syntactic reconstruction differs markedly form traditional segmental phonological or morphological reconstruction. Thus, in order to attain such syntactic reconstruction we must turn to morphology and phonology and other sections of grammar that might help us pin down the plausible areas of syntax to be reconstructed. I strongly believe that this wider view of things will greatly improve our knowledge of the diachronic developments of negation –e.g. the gradual renewal of negators– within the earliest stages of the attested IE languages. In the same vein, my hope is to demonstrate that a related phenomenon –i.e. polarity– is present in some of the earliest attested IE languages so that they could be ascribed to an earlier stage of the proto-language. We will see as well that negation will be one of several contexts that activate polarity and, therefore, the appearance of other morphological elements in a given sentence. Finally, I would like to stress the idea that this is, above all, a morphological study of negation through the prism of the syntactic and semantic typology. Both negation and elements under its scope such as indefinite pronouns and adverbs are the object of this study.

1.2 Corpus

I have selected three IE branches: Ancient Greek, Old Iranian, and Old Indic. See Table 1 for more detailed information about the languages in question [3]. With the only exception of Anatolian languages with texts spanning from c.1650 BCE to 1175 BCE, these three branches represent the earliest IE languages whose texts we have come to preserve, in some case, after long centuries of oral tradition. In spite of the selection of a closed corpus, along this study I will make ample reference to other IE languages when I consider that the data will benefit from providing parallel examples from other linguistic branches. As we will see, this is particularly true for the last chapter in which I have included a concise study of the relationship between negation and indefinites in other IE languages for the sake of comparanda. I have purposely neglected to include a full textual analysis of other IE branches so that we attain some kind of homogeneity in relation to the nature and geographical distribution of the languages in my study. However, in some respects I have failed to achieve this, due to the chronological disparity within some branches. The amount of texts at our disposal for each language varies. For example, Mycenaean Greek occurrences of negation are scanty. The same could be said about Old Persian that is only fragmentarily attested in the Achaemenenid Royal Inscriptions.

Table 1: Overview of languages and their estimated chronology according to the composition of the texts

	c. 1500-1200 BCE	c. 800-350 BCE
Ancient Greek	**Mycenaean Greek** administrative tablets (Pylos and Knossos)	**Homeric Greek** the *Iliad* and the *Odyssey*.
Old Iranian	**Old Avestan** *Yasnas: Gathas* *Yasna Haptanhaiti*	**Young Avestan** the *Yasnas*, *Yašts*, and *Vendidad.* **Old Persian** Achaemenid Royal Inscriptions.
Old Indic	**Vedic Sanskrit**: the *Rigveda*.	

Although I mainly focus on the synchronic analysis of the oldest attestations, I will also consider data from later stages in order to assess the diachronic developments that have taken place over the history of a language. Therefore, I will take into

[3] For each language a full description of its corpus and chronology will be provided.

consideration the data provided by Classical Greek, Middle Persian and Classical Sanskrit when I deem it necessary.

Chapter five of this dissertation will be devoted to treat negation through the history of Achaemenid Elamite, a non-Indo-European language of Ancient Iran and attested in the Achaemenid Royal Inscriptions –together with Old Persian– and in the administrative archives of the Achaemenid Empire. Its importance is rooted in how its linguistic structure has been transformed due to Old Iranian influence. I will discuss bilingualism as a linguistic phenomenon and how it reflects the scribal world in Ancient Iran. This section is of great relevance for Old Iranian, concretely for Old Persian, since, as I will show, Achaemenid Elamite works as a reflection of Old Iranian morphological structures. Thus, I will treat the linguistic textual interferences between Old Iranian and Achaemenid Elamite and how they represent a good example of contact linguistics.

Table 2: Chronology of Elamite language

	c. 1500-1200 BCE	**c. 1000-600**	**c. 500-338 BCE**
Elamite	**Middle Elamite** Royal Inscriptions	**Neo-Elamite** Royal Inscriptions	**Achaemenid Elamite** Achaemenid Royal Inscriptions and administrative tablets (Treasury and Fortification tablets).

Finally, I would like to briefly discuss the nature of the chosen languages and of the kind of texts under study. Corpus languages –some of them more fragmentary than others– are usually considered "bad data" that a linguist should try to avoid [4]. Moreover, one might think that the literary nature of the texts should make a person deem them unfit for linguistic analysis. In principle, the languages we are dealing with here are not true natural languages, or at least, they have never been spoken [5]. It is evident, then, that literary written traditions do not go parallel to the actual language being spoken at a certain period in the history of a language. This entails a predicament as to what extend can one base his or her linguistic analysis on a language strongly biased by this "unnatural" state. The discrepancies with the real language, nevertheless, do not vacate

[4] McDonald's (2017) insightful paper on bilingualism in ancient languages suggests that fragmentary languages should be approached by taking into consideration a variety of aspects: the treatment of a corpus as a whole, the domain or social contexts, and, finally, other disciplines that could aid in the description of the data such as palaeography, archaeology, epigraphy, etc.

[5] Another related issue is how languages such as Vedic, Avestan, or Homeric Greek are influenced by their own metrical patterns in respect to word order.

the value of a language such as, for instance, Homeric Greek [6]. It has been stressed that poetic texts, even if they stretch grammaticality to its limits, never trespass the boundaries of grammar. Keydana (2017:2196) asserts that poetic license does not lead to agrammaticality. From a linguistic point of view, difficult as it is sometimes to apply a proper linguistic analysis to this type of languages, one must bear in mind that they, nevertheless, are a reflection of natural languages that show specific syntactic and morphological patterns that can be subject to study. At the same time, I strongly believe that, since these texts were perfectly understood by an audience in spite of a sometime very long oral transmission, their intelligibility makes these texts worth looking as a fixed representative of a natural language. The absence of speakers does not mean that a language cannot be dissected in the way modern languages are. This lack of active conversational aptitude must be compensated by a thorough review of the diachronic evolution of a language and by the comparative study of other linguistic-related languages.

1.3 Theoretical framework

Haspelmath (2010: 342) asserts: "Most linguists seem to agree that we should approach a language without prejudice and describe it in its own terms, non-aprioristically, overcoming possible biases from our native language, from the model of a prestige language (such as Latin or English), or from an influential research tradition (such as that of Donatus's Latin grammar, or Chomsky's generative grammar)". The framework that I have decided to use, at first, could be reckoned as eclectic, since no specific framework-bound grammatical theory has been adopted. Indeed, I take into consideration all previous works on negation that undoubtedly have adopted one framework or other. This is the case, for instance, of the generativist approach in its different variants. Here I refer especially to the advances carried out in the last two decades by syntactic semantics, especially by Giannakidou (1998) in her theory of (non)veridicality that accounts for several phenomena related to negation.

To a certain extent I follow a framework-free grammatical theory as explicitly put forward by Haspelmath [7]. He stresses the fact that frameworks set up expectations into the analysis of a language. Framework-free Grammatical Theory, however,

[6] Other cases in point in our corpus are the fragmentary status of Old Persian or the difficult editorial tradition of Avestan texts developed by Avestan philology.

[7] He is one of the most renowned advocates of a framework-free grammatical theory.

advocates that the description of a language should be in its own terms and that functional linguistics (explanatory theories) should necessarily be diachronic always supported by a comparative view. Notwithstanding, I must acknowledge that my approach is closer to the Basic Linguistic Theory in the spirit of Dryer who also considers of the utmost importance the principle of describing each language in its own terms [8]. Basic Linguistic Theory takes as much as possible from earlier linguistic traditions and it differs from traditional grammar in its attempt to describe each language in its own terms (Dryer 2006: 211). Contrary to the ideas put forward by generative grammar, functional explanation exists independently of grammars and grammatical description. Therefore, there is a difference between explanatory theories and descriptive theories. The latter provides a set of tools and concepts for providing adequate descriptions of each language in all its complexity and idiosyncrasy. Also, descriptions provide the major source of data for theoretical work in typology. This label is sometimes applied, not only to descriptive work on particular languages, but also occasionally to crosslinguistic typological work (Dryer 2006:207). In a number of respects, this is closer to traditional grammar. Sometimes Basic Linguistic Theory is considered inadequate in that it is too imprecise and too vague. However, I strongly believe that this is the best way to approach corpus languages such as early IE languages. A thorough description of linguistic features in combination with a broadly comparative approach sometimes can offer a complete spectrum of a language that can shed some light on the different functions within its linguistic system. Thus, clearly indebted by the terminology and typology of negation of a long evolving tradition since Jespersen, I intend to perform a descriptive analysis of the morphological elements of negation through a syntactic perspective. This means that the "metalanguage" that will be used should, in no way, be ascribed to any framework, in the spirit of Haspelmath's assertion that the analysis of one language should never be based on the analysis of another.

For the sake of clarity, in the description of elements and phenomena regarding negation I have made use of concepts and categories that have been used or devised in recent studies of negation as well as in the long grammatical tradition of early IE languages. To a certain extent I agree that a description of a language necessarily involves a framework. In order to start an analysis one must count on acquired concepts

[8] Haspelmath (2010: 360 fn. 5) agrees that Basic Linguistic Theory would be equivalent to Framework-free Grammatical Theory as long as both follow this principle.

and tools at his or her disposal so that one can embark in the task of linguistic analysis. One must be careful, though, not to force preconceptions of morphological categories or syntactic phenomena into the analysis of a language.

Lastly, I must stress that not a purely linguistic/typological analysis of the texts has been performed. A thorough knowledge of a given language and its grammar is fundamental in the study of a language. The variation in a language can only be fully grasped by the deep knowledge of the ample grammatical resources that a language relies on. Bernabé (1984: 291-99) stresses the dangers of applying new linguistic frameworks based on modern languages to ancient languages whose account cannot be contrasted with native speakers. Thus, he highlights the necessity to bring into use not only a linguistic approach to language data, especially when dealing with corpus languages, but also to utilize the ample tools that philology has at our disposal in order to treat different language phenomena. Thus, a philological approach of the languages in question has been put into use. In this line, Willi (2018: xxiii) states that we should avoid to delimit our study according to the views of "reconstructionists", whose only interest is the significance of the proto-language, of "typologists", whose only focus is language change, and of "philologists" who neglect the importance of the historical evolution of individual languages. In this manner, I set out to engage language data of early IE languages along the lines of these three groups all together.

1.4 Typological framework

In this section, I provide the typology of negation and the terminology used for the systematic study of negative markers (standard and non-standard) within declarative sentences, indefinite pronouns and adverbs, and polarity. I do not deal with prefixal or prohibitive negation, which, on linguistic grounds, will be considered as non-standard negation. My study does not pretend to mark the difference between constituent or sentential negation either, although this division will be specified along the analysis of each language. Sentential negation will be the main scope of my study. Regarding the typology of negation, I follow Klima (1964) [9], Payne (1985), Horn (2001), Dahl (1979, 2010), Givón (2001), Dryer (2005), and Miestamo (2005, 2007). The main topics under discussion will be standard negation, (negative) indefinites and polarity, and negative coordinates.

[9] Klima presents a transformational treatment of negation only applied to English.

1.4.1 Standard negation

Payne (1985: 198) states that standard negation (SN) is that type of negation that can apply to the most minimal and basic sentences. Such sentences are characteristically main clauses and consist of a single predicate with as few noun phrases and adverbial modifiers as possible. One can collect from this definition that this kind of negation is prototypically associated with the finiteness of the verbal form [10]. Dahl (2010: 27) considers various negative structures as non-standard in languages exhibiting special means of expressing negation: negative imperatives, negation in sentences with non-verbal predicates, negation in existential sentences [11], and negation in embedded clausal structures. Givón (2001:390-2) also mentions that some languages use different negative markers across tense-aspect-modality. For his part, Kahrel (1996:71) notes that there are certain grammatical environments that are more likely to have negative elements different from standard negation. The scope of this study is mainly standard sentential negation employed in declarative sentences.

1.4.1.1 Prohibitive negative marker

The difference between standard negation for declarative sentences and prohibitive negation is sometimes blurry in the use of a (special) negative marker. Horn (2001:447) mentions a distributional pattern in which two descriptive negators are differentiated, one occurring in indicative and/or main clauses and the other restricted to imperative contexts or to certain (typically subjunctive or nonfinite) embedded clauses. Payne (1985:223) connects this difference in negative markers with a variation according to mood (Hungarian), and tense or aspect (Arabic). Sadock & Zwicky (1985: 175) assert that in their language sample about half display a special negative of a imperative sentence type, i.e. the prohibitive marker. Van der Auwera & Lejeune (2005) propose a typology of negative imperatives (prohibitives) based on a sample of 495 languages: (1) The prohibitive uses the verbal construction of the second singular imperative and sentential negative strategy found in (indicative) declaratives. (2) The prohibitive uses the verbal construction of the second singular imperative and a sentential negative strategy not found in (indicative) declaratives. (3) The prohibitive

[10] For the typological and crosslinguistic discussion of the types of negative morphemes and negative constructions within standard negation I follow Dahl (1979, 2010) and Miestamo (2005a,b, 2007) respectively.

[11] In Modern Hebrew a different negative marker is used for existential/possessive clauses.

uses a verbal construction other than the second singular positive imperative and a sentential negative strategy found in (indicative) declaratives. And (4) the prohibitive uses a verbal construction other than the second singular positive imperative and sentential negative strategy not found in (indicative) declaratives. It is noteworthy that in a clear majority of languages imperative use a negative strategy that differs from standard negation. As stated, I will assess this typology in the languages analysed and I will show that this division is not as straightforward when dealing with early IE languages.

1.4.1.2 Negation and modality

As regards prohibitive markers understood as modal negative markers, interaction between modality and negation is an important factor to take into consideration. In the light of Jespersen (1924), Palmer (1986) points out that there are two basic types of modality: epistemic, which does not entail any elements of will, and deontic, which does [12]. On the one hand, epistemic modality centers on the speaker's opinion or attitude towards the proposition. For Haan (1997:5) epistemic modality indicates the degree of commitment of the speaker to what he says plus the information on which the speaker bases his or her utterance. Therefore, it implies both judgments (possibility or probability) and evidentials, i.e. the type of evidence that the speaker has for marking his or her speech utterance. This type would include the following types: Necessitative (*he must be rich*), Hypothetical (*if he were rich*), and Dubitative (*He may be rich*). On the other hand, deontic modality, which Palmer considers as directives, implies that the subject of the sentence is permitted or obliged to perform the action expressed in the sentence. This type would include the following types: Obligative (*he should go*), Permissive (*you may go if you like*), Iussive (*go*!) and Optative (*may he still be alive*). There are different syntactic categories for expressing modality in a given language: auxiliary verbs, modal verbs, verbal affixes, adverbs, and particles. Palmer (1986:19) distributes them into three groups: i. individual suffixes, clitics and particles, ii. inflection, iii. modal verb. Although the interaction of modality and negation is beyond the scope of my study, I will focus in the strategies that determine the relative

[12] Both of them could be further subdivided into 'weak' or 'strong' types. This subdivision refers to the degree of commitment by the speaker or the degree of obligation on the subject. Notwithstanding, note that some languages do not mark the difference between both modalities.

scope –that part of the proposition that falls within the domain of a certain operator– of modality and negation. For example, in non-assertive contexts, negation and interrogation can be intertwined in order to develop some *irrealis* marking (Palmer 1986:173-5). In this way, some languages attest a connection between negation and interrogation in yes-no question. Another very frequent interaction is negation with the subjunctive mood, especially in subordinate clauses where the superordinate clause is negated (Palmer 1986: 116). Sometimes, instead of negative imperatives, subjunctive can be used together with a standard negative marker. Furthermore, modal verbs usually convey sematic values of possibility and necessity (Palmer 1986: 106) [13]. As we see, the use of modality with different negative markers is not straightforward, but it helps to point out whether a given sentence might be deemed to be inserted in a veridical or non-veridical context, an important issue regarding the semantic contexts that also permit the presence of the same elements as negation, e.g. polarity indefinites.

1.4.1.3 Typology of standard negation

As stated before, this study mainly concentrates on sentences with a verbal predicate, i.e. a finite verb [14]. I provide here three main classifications of negation constructions. Some authors have treated the nature of negative morphemes extensively. Dahl (1979:81), whose study is based in a wide sample of languages from different linguistic families, asserts that the negative marker can be either morphological (synthetic)[15] or syntactic (analytic): either negation (NEG) consists in a particle fused with the verbal form pre or post verbally or in an independent particle[16]. On the one hand, morphological negation can be by affixation (prefixal or suffixal, or even infixal) of negative markers to a verbal form, becoming NEG an inflectional category of the verb. I provide one example in (1). Sometimes there are problems in the realization whether an affix should be taken as a morpheme part of the finite verb or as an independent particle.

[13] For a complete typology of negative modals, cf. van der Auwera (2001: 23-48).
[14] Dahl (1979: 87) asserts that this finite element is where such morphological categories as tense, mood, subject agreement, object agreement, speech level, etc. are marked, if they are marked at all. In negative sentences, it is chosen the same finite element of affirmatives sentences.
[15] Cf. Payne (1985: 226-28).
[16] Payne (1985:228) follows this division, adding negative nouns to the list, which seems to be a marginal type.

(1) Morphological negation in Turkish (Turkic) (Dahl 2010: 14)
a. *Oku-yor-um*
read-PROG-1SG
"I am reading"

b. *Oku-**mu**-yor-um*
read-NEG-PROG-1SG
"I am not reading"

Syntactic negation, on the other hand, should be subdivided into four types: particles, which is the simplest syntactic NEG construction and it is the most common marking of negation within IE languages, negative verbs, negative auxiliaries, and negative particle + dummy auxiliaries, as in (2). In all cases, negation works as an operator on sentences to yield new sentences. Two features characterize negative particles (Dahl 2010: 19): (i) they are independent words rather than affixes and (ii) they are not inflected. This is the most common type of standard negation together with affixal negation as mapped by Dryer (2005: 456-7). We will see in the cases of Greek and Persian that a language can change from one type of negation into another.

(2) Syntactic negation

a. Negative particle: Spanish (Romance, Indo-European).

Andrés viene
A. come.PRS.3SG
"Andrés comes"
*Andrés **no** viene.*
A. NEG come.PRS.3SG
"Andrés does not come"

b. Higher negative verb: Tongan (Malayo-Polynesian) (Dahl 2010: 20)

na'e 'alu 'a Siale
ASPECT go CASE Charlie
"Charlie went".
*na'e **'ikai** **ke*** [17] *'alu 'a Siale*
ASPECT NEG ASPECT go CASE Charlie
"Charlie did no go".

c. Auxiliary negative verb: Finish (Fenno-Ugric) (Dahl 2010: 21)
Pekka lukee
P. read.PRS.3SG
"Pekka is reading".

[17] *ke* is an aspect marker of completed action which shows up in subordinate clause only.

Pekka ***ei*** [18] *lue*
P. NEG-3SG read
"Pekka is not reading".

d. Non-negative auxiliary: English (Germanic, Indo-European). (Dahl 1979: 85)

John smokes

John ***does not*** *smoke*

Miestamo (2005: 51-166) [19] devices a classification based on the division between symmetric and asymmetric negation. He focuses on the functional motivations (pragmatics and semantics) for the different types of negative structures [20]. In symmetric negation the structure of the negative is identical to the structure of the affirmative, except for the presence of a negative marker, as in (3). It seems that symmetric negation, both constructionally and paradigmatically is more common than asymmetric negation in the world languages. The symmetric type is frequent in all parts of the world, especially all over the IE area. On the other hand, in asymmetric negation the structure of the negative differs from the structure of the affirmative phrase. This difference could be marked in various ways. See (4) for an example.

(3) Symmetric negation (Miestamo2005: 53)

Singen "to sing", PRESENT , German (Germanic, Indo-European)

AFFIRMATIVE	NEGATIVE
1.SG *ich singe*	*ich singe* ***nicht***
"I sing"	"I don't sing"

(4) Asymmetric negation (Miestamo2005a: 65)

Laulaa "to sing", PRESENT, Finish (Fenno-Ugric)

AFFIRMATIVE	NEGATIVE
1.SG *(minä) laulan*	*(minä)* ***en*** *laula*
"I sing"	"I don't sing"

[18] *ei* is a negative auxiliary which agrees with the subject, but does not have more than one tense.
[19] Cf. Miestamo (2011) for a summarized introduction into this division.
[20] Miestamo works on a representative sample of 297 languages.

1.4.1.4 Constituent and sentential negation

On his paper on negation in English, Klima (1964: 262-70) presents a test in order to know whether the scope of a negative element should be applied to just a part of a sentence or to an entire proposition. He labels as 'constituent negation' the type of negation that restricts itself to only a part of a sentence, as in (5), and 'sentential negation' the type of negation whose scope covers an entire sentence, as in (6).

(5) Constituent negation

a. *John is unhappy*

b. *Elisabeth is a non-smoker*

c. *Not long ago, we went separate ways.*

(6) Sentential negation

The bus did not pass by the station.

This dichotomy was based on a diagnostic test restricted to English that would suggest that sentences with sentential negation would permit: (a) neutral tag question without *not*, (b) it may be conjoined with a clause of the form *and…neither* and (c) appositive tags beginning with *not even*. See (7b) [21]. Payne (1985: 199) notes that the difference between constituent or sentential negation is not as straightforward. In sentences like (7a), one might suggest that what is negated is often not the whole sentence, but rather a section of it. There are two plausible readings for (7a): that John did kiss Celia, but not in the rain (constituent) or that John did not kiss Celia at all, not even in the rain.

(7) (Payne 1985: 199)

a. *John did not kiss Celia in the rain*

b. *John didn't kiss Celia in the rain,* { *did he*? / *and neither did I* / *even once* } *did not*

Payne suggests that these two interpretations depend on the contextual articulation of the sentence, which is pragmatically determined. There are contextually bound and contextually free elements, the latter being usually negated. Payne (1985:

[21] Cf. Jackendoff (1969:218) for a similar test.

200) devises a performative paraphrase in addition to Klima's test: *I say of X that it is not true that Y,* where X contains bound elements, Y contains the free elements [22]. Thus, a reading of (7a) would be *I say of John that is not true that he kissed Celia in the rain*, which would reflect sentential negation, or *I say of John's kissing Celia that is not true that it was in the rain*, which would be constituent negation. In both cases the contextually bound elements are removed from the scope of negation and what is negated is the contextually free portion of the sentence.

1.4.1.5 Scope, focus, and position of negation

According to Givón (2001: 380-1), only a portion of a negative proposition falls under the scope of negation, while the rest is shielded [23]. It is through contrastive stress on constituents in the clause that we convey focused negation, which is essential to determine whether a negation is constituent or sentential. Optional participants tend to attract the focus of negation to them and, therefore, this phenomenon implies movement of the negative element through the sentences in order to focalize negation over a specific element. In many languages a negative marker can be moved from its standard position to the focused constituent [24]. In this way, among the methods of narrowing down the scope of negation to a single constituent, one can count on contrastive stress, cleft-focused constructions, and fronting/postposing of the NEG-focused constituent. Payne (1985: 232-3) also realizes that in some languages the association of negation and focus is made by different syntactic means such as clefting, focused-related placement, etc or by special negative forms within fronting contexts.

Jäger (2008: 21) states that it is very uncommon to find negative sentences that only express that a proposition is false. In most cases negation focalizes in some or other element within a sentence in order to provide extra semantic values to a phrase. Levinson (1983: 171; 221-22) considers that negative phrases are not usually very informative, so it is very probable that with negative sentences one might be trying to transmit more information than the one being explicitly expressed. This principle is

[22] Some sentences appear to have constituent negation, usually triggered by the presence of an element such as an adverb: John *often* doesn't pay taxes. Negation here does not comply with any of the two tests in order to be sentential.

[23] This is a radical view of the focus of negation that would imply that there is no wide scope. Negation would be always focused in one element of a sentence.

[24] I will show that indefinites are very prone to attract negative markers to their position. Cf. Negative absorption. Notice that also focused negated constituents such as negative indefinites have the scope of the negation over the entire sentence.

known in pragmatics as the 'principle of infomativeness' that allows us to infer sometimes more information (narrow scope) than the one being provided at first (wide scope). This would make us understand that, on the one hand, the phrase *Mike does not eat much* is false (wide scope) and, at the same time, infer, from the principle of informativeness, that *Mike eats little, not much* (narrow scope) is a correct deduction.

Dahl (1979: 104-5 fn. 1) presents a tentative typology of the interaction between focus and negation. He makes a distinction between focus-dependent placement, as in Russian that places negation before the focused element, and verb dependent NEG-placement as in English [25].

Another important issue about negation is the position that occupies within the sentence. Jespersen (1917: 5) already notes the universal tendency of languages for placing the negative maker as soon as possible in the sentence. Dryer (1992: 97-8) presents his data about the placement of standard negation in each world area. The generalization is that both SOV and SVO languages [26] exhibit a tendency to place the negative particle pre-verbally. In Dryer (1988), he brings forward extensive data (345 languages) to support this assumption: that the negative marker occupies a slot before the VP, more evidently in SVO languages, as we can see in Table 3. The shaded boxes represent the highest frequency for each type of word order. For SVO languages, the most common position for the negative is between subject and verb.

Table 3: Position of negatives in SVO languages. Number of languages (number of families in parentheses) (Dryer 1988: 94)

NEG S V O	4	(3)
S **NEG** V O	47	(13)
S V **NEG** O	3	(1)
S V O **NEG**	13	(4)
TOTAL	67	(15)

On the contrary, SOV languages display preferably preverbal and postverbal positions as the most common patterns. See Table 4. In the next chapters, I will show that negation in both word orders (SOV and SVO) tends to be preverbal, but with a

[25] Dahl adds a further division in connection with negation and indefinites: a. NEG + indefinite (*I don't see anybody*), b. NEG-indefinite with a different indefinite, in this case a negative one (*I see nobody*), and c. NEG + NEG-indefinite (*I don't see nobody*), which in standard English would render an ungrammatical reading. See section 1.4.2.4.

[26] According to Greenberg (1963:61), the first universal for the word order of meaningful elements is that the dominant order is almost always one in which the subject precedes the object.

diverse distribution of components. Finally, there are verb-initial languages in which the position of the negative marker is in all cases preverbal (Dryer 1988:97).

Table 4: Position of negatives in SOV languages. Number of languages (number of families in parentheses) (Dryer 1988:96)

NEG S O V	8	(5)
S **NEG** O V	6	(3)
S O **NEG** V	39	(15)
S O V **NEG**	64	(18)
TOTAL	117	(23)

For Dryer, these strong tendencies can be explained by three general principles that interact with each other: Branching Direction Principle, which consists in either phrasal plus non-phrasal elements in left branching or non-phrasal plus phrasal elements in right branching, Negative-Plus-VO principle, which means that a negative neither interrupts nor is separated from the VO combination, and Negative-Before-Verb Principle [27], this is, preverbal negation.

Horn (2001:452) calls NegFirst principle the strong tendency for negative markers to gravitate leftward so as to precede the finite verb or other foci of negation, as already proposed by Jespersen (1917: 4): "There is a natural tendency, also for the sake of clearness, to place the negative first, or at any rate as soon as possible, very often immediately before the particular word to be negative (generally the verb)". Dahl (1979: 89) abstracts from this statement two general principles: NEG tends to be placed early in the sentence and NEG tends to be placed immediately before the verb [28]. He suggests that, according to these tendencies in his language sample, that NEG placement is very seldom free, even in languages with free word order. Thus, he proposes a universal tendency for NEG to have a definite position relative to the finite element of the sentences (i.e. the verb) and to place itself as close to it as possible [29]. He also notes the tendency of languages to place the negative marker pre-verbally, especially for uninflected negative markers and the fact that NEG occurs early in the sentence if the

[27] He also provides other available explanations for the most common positions of the negative morphemes for each kind of word order: The head-dependent theory, Lehman's proposal, Keenan's proposal, and finally, Givón's proposal.

[28] For this last principle, Dahl (2010: 23) proposes three further claims: i. the placement of the negator is generally defined relative to the verb. ii. the negator is in direct contact with the verb. iii. the negator tends to precede the verb.

[29] A very limited number of elements may appear between the Neg morpheme and the finite verb.

verb does [30]. At the same time, he explains postverbal negation as the result of the grammaticalization process motivated by Jespersen Cycle (see section 1.4.2.5) or, at least, as the endpoint of language change in comparison with the previous stage where preverbal negation was in use.

NegFirst contrasts with the FocusLast principle, coined by de Swart (2010: 95), which suggests that some languages have a tendency on the opposite direction, i.e. to place the negative marker post-verbally. According to her, if negation is part of the new information expressed by the sentence, it is expected to show up late, rather than early in the sentence. FocusLast is then motivated by the idea that the negative force is stronger if the negative marker comes later in the linear order.

Moreover, I would like to briefly disscuss about word order followed by negative indefinites. As noted by de Swart (2010: 117), negation can be attracted to other expressions in the sentence, particularly indefinites. The morphological incorporation of negation to indefinite pronouns, adverbs, and conjunctions is a widespread phenomenon and is one of the most fruitful ways of creating negative words. Already described by Jespersen (1917: 56-62), Mazzon (2004: 38-9) coins as 'negative attraction' this strong natural tendency that consists in attracting the negative notion to any word that can easily be made negative [31]. Haspelmath (1997: 205-210) describes the result of this phenomenon as 'negative absorption', which he considers as one of the principal means of creating new negative indefinites alongside Jespersen Cycle. For both de Swart (2010:119) and Haspelmath (1997: 206), this principle interacts with NegFirst. The forms *nobody*, *never*, *niemand*, *nessuno*, etc. all attract the negation in sentences involving an existentially quantified variable in the scope of negation (de Swart 2010: 119). From a different perspective, Givón (2001:392) considers these negative indefinite formations as an example of emphatic negation or noun phrase negation that shares with focused negation the marked syntactic feature of placing a negative marker on a non-verbal constituent.

[30] Steele (1975), in his study on modals and particles, suggests that unmarked positions are acted upon two tendencies: the tendency for particles to be attracted to the verb and the tendency of these same particles to be positioned initially. Greenberg (1963:80), in his universal 7, suggests more less the same thing for SOV languages: adverbial modifiers of the verb precede the verb. Dahl calls this 'finite element last constraint'.

[31] In de Swart (2010:119), this principle is stated as follows: NegAttract: realize (clausal) negation on an indefinite in an argument or adjunct.

Finally, I would like to mention the phenomenon called Neg-raising [32]. Jespersen (1917:52) already notes that there is a tendency in many languages to attract the negative that should logically belong to the dependent nexus to the main verb, as in (8). Outside the generative approach, Haspelamath calls this phenomenon indirect negation.

(8) Neg-raising (Jespersen 1917: 52)
I don't think he has come < I think he has not come.

1.4.2 Negative indefinites and polarity

Penka (2015:5-6) asserts that languages can express negation not only by negative particles, but also by quantifiers like *no-*, *nobody* or *nothing*, as they render the main predicate in the scope of negation. Thus, this study will focus not only on standard negation, but also in other negative elements that convey the expression of negation within a given language. I concretely refer here to negative indefinites (NIs). Also I will discuss indefinites that can only behave grammatically within the presence of a negator that works as a licensor. These elements that are not inherently negative are called negative polarity items (NPIs). Finally, in the last section I will treat negative coordinates.

1.4.2.1 Sources of indefinites and origin of negative indefinites

In relation with the origin of indefinites, one can notice that crosslinguistically it is very common to find that indefinite pronouns/adverbs are identical in form, or derivationally related, to interrogative pronouns (Bhat 2004: 226) [33]. Disambiguation is achieved by different methods such as syntactic differences (e.g. indefintes as enclitics), or their tonic or atonic nature (e.g. unaccented indefinites). The main function of these forms is to express indefinite reference. In this study, I do not include other related forms– often included among indefinites –such as universal quantifiers (*all*, *every*) or mid-scalar quantifiers (*few*, *several*). However, I have added the numeral 'one', whose involvement in the creation of new (negative) indefinite and negative markers makes it

[32] For a detailed overview of Neg-rasing, cf. Horn (1978:129-220; 2001: 308-330) and Collins and Postal (2014).
[33] There are, however, other indefinites that can be 'generic-noun' or 'one' based. For a complete discussion about the sources of indefinite pronouns across languages, cf. Haspelmath (1997).

important for my analysis. The types of indefinites under the scope of our study are the following:

Table 5: Types of indefinites according to the ontological categories

	person	**thing**	**place**	**time**	**manner**
some	*someone*	*something*	*somewhere*	*some time*	*somehow*
any	*anyone*	*anything*	*anywhere*	*any time*	*anyhow*
no	*no one*	*nothing*	*nowhere*	*never*	*no way*

Indefinites normally occur in series, which have one member of the major ontological categories: person, thing, property, place, time, manner, amount, plus a few others (Haspelmath 1997: 21). Indefinite pronouns are compound forms consisting in a formal element that conveys the indefiniteness, which is normally an affix or a particle, shared by all the members of an indefinite pronoun series, and a stem expressing the ontological category being described. Negative indefinites should be taken as part of a broader picture, in which negation ascribe its semantic value to an indefinite constituent. Negative quantification, according to de Swart (2010: 127), can be expressed by sentential negation plus an indefinite or by a negative indefinite with *x* indefinites in its scope (cf. negative spread).

Payne (1985: 235) asserts that languages with negative particles rather than morphological negatives often permit quantifier negation. Building on Klima (1964), he makes a division between negated quantifiers (*not many*) and adverbs (*not often*) and what he considers inherently negative quantifiers (*nothing*) and adverbs (*never*). In general, indefinites are considered to be expressing quantification. Therefore, Dahl (2010: 29) considers NIs as negative quantifiers that inherently express negative universal quantification. In relation to the negative nature of these indefinites, it is usually believed that inherently negative elements can express negation by themselves in different contexts without the presence of syntactic negation, especially in elliptical contexts [34].

The first thing to discuss is the interaction between negation and indefinites. Mazzon (2004: 38-39) dubs as negative attraction [35] the rule that prescribes the

[34] This goes along with two universals (or at least strong tendencies) proposed by Haspelmath that suggest if an indefinite is only used in direct negation and not in any other function, it may be used elliptically with a negative interpretation (the elliptical criterion).

[35] Labov (1972) is the first one to propose a negative attraction rule.

attachment of a negative morpheme to the first possible element (or locus) in a clause, as in (9).

(9)
a. *Nobody came*

b. **Anybody did not come*.

As mentioned, this attraction entails negative absorption, in which the verbal negation is, so to speak, absorbed into the indefinite (Haspelmath 1997: 205)[36]. De Swart (2010: 118) considers negative absorption a kind of a broader incorporation system that can also be seen in adverbs and conjunctions. Within the generativist tradition, Haegeman (1995:106-7) explains this as an agreement phenomenon that she calls the Neg-criterion and that she derives from the behavioural similarities between negatives and interrogatives constituents (cf. *wh*-criterion as described by Rizzi 1990).

1.4.2.2 Negative Concord: n-words and NPIs [37]

This process of attraction and absorption is realtion with yet another very widespread negative phenomenon, i.e. negative concord (NC), where the multiple occurrence of negatives –a preverbal standard negation and a postverbal negative indefinite pronoun– express a single instance of negation (de Swart 2010: 20-21), as in (10a). The indefinites pronouns participating in NC are termed n-words by Laka (1990: 108) and they are functionally similar to negative polarity items since in most cases they always co-occur with verbal negation [38], although they behave as negative quantifiers in isolation (in elliptical fragment answers). The following definition is provided by Giannakidou & Zeijstra (2017:7):

[36] Klima (1964) already notes the transformations of negative attraction and incorporation. He also proposes a feature checking in the movement of an indefinite *wh*-element into a *wh*-feature.
[37] For a complete discussion on the true nature of n-words typologically speaking, cf. Giannakidou & Zeijlstra (2017:15-29).
[38] See below and section 1.4.2.5. for a definition of negative polarity items. Not only indefinites seem to act as negative polarity items, but also other elements such as lexical-minimal-unit (minimizers) expressions, such as *lift a finger*, *see a living soul*, temporal adverbs such as *yet*, etc.

Figure 2: Semantic definition of n-words

N-word: an expression α is an n-word if and only if (iff):

i. α can be used in structures that contain sentential negation or another α-expression, yielding a reading equivalent to one logical negation; and

ii. α can provide a negative fragment answer (i.e., without the overt presence of negation).

Haspelmath (1997:231) claims that the use of n-words is functionally motivated by the desire to mark the focus of negation, that is, the participants that are affected by negation.

On the oher hand, polarity is another important factor in play: it consists in an item α which is an expression whose distribution is limited by sensitivity to some semantic property β [39]. The presence of a negator licenses certain elements to be present in given clause. Such elements are negative polarity items (NPI), which, according to Horn (2001:49), can only appear felicitously within the scope of negation or a semantically related operator (interrogative or conditional clauses, as we will see). Note that n-words are not NPIs in the sense that the latter are lexical items with a much more restricted distribution [40]. There are languages where n-words can express negation by themselves, i.e. without the presence of a standard negative marker, as in (10b). These languages, such Spanish or Italian, are called non-strict NC languages. It is the negative indefinite that conveys the negative semantics with scope over an entire clause. Bosque (1987:45-50) explains this phenomenon as the result of negative thematization and the subsequent deletion of the negative marker.

(10)
Spanish, Romance, Indo-European.
a. *No viene nadie*
NEG come-PRS.3SG Neg-Indef.

b. *Nadie viene.*
Neg-indef. come-PRS.3SG

Languages such as Russian display strict NC, i.e. the negative marker is always present together with the negative indefinite. In the eventual appearance of a negative marker and a negative indefinite, non-NC languages such as English render a double negation (DN) reading, as in (11)

[39] We will see below that this semantic property must be at least non-veridical, according to Giannakidou (1998).

[40] Also several languages possess a different set of indefinites that can be used as NPIs, e.g. Engl. *any*.

(11)
a. English, Germanic, Indo-European.
They did not see nobody.

b. Russian, Slavic, Indo-European (Haspelmath 2005: 466).
Nikto ne prišel
Nobody NEG came
"Nobody came"

Related to NC is *negative spread* which consists in one n-word licensing a second post verbal n-word:

(12) Spanish, Romance, Indo-European.
Nadie dijo nada.
n-word said n-word

1.4.2.3 Negative indefinites' true nature

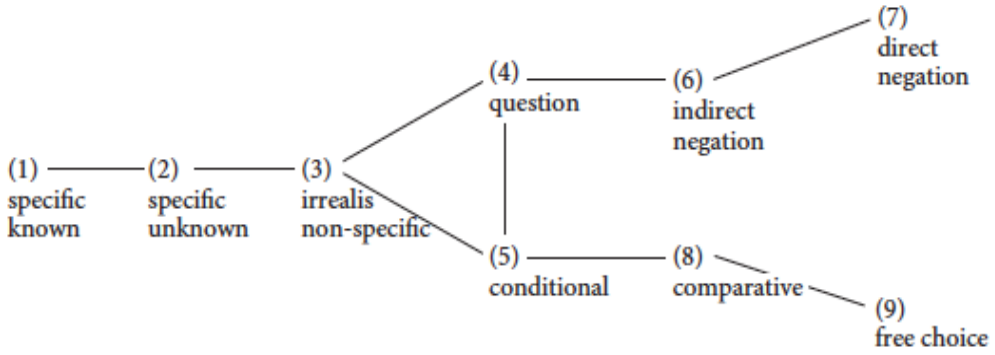
The true nature of negative indefinites has been discussed in the literature. Zannutini (1991) and Haegeman (1995) already explain the behaviour of negative indefinites in terms of agreement and feature checking within the generativist tradition. Moreover, Zeijlstra (2004) proposes, in his study of NC, that negative indefinites are non-negative and that NC is the result of feature checking between an uninterpretable negative feature [- neg] of the negative indefinite and an interpretable negative feature of sentential negation [+ neg]. Even in the cases where there is no standard negative marker as in non-strict NC cases (10b), there is a feature checking between a uninterpreatable negative feature and a covert negative operator with an interpretable negative feature. Thus, according to Jäger (2010:798), negation in a negated clause is always contributed by a semantic neg-operator that is overtly present (in the form of a negative particle) or covertly present somewhere else in the clause.

1.4.2.4 The typology of (negative) indefinites

Haspelmath (1997, 2005), Bernini and Ramat (1996), and Kahrel (1996) have extensively discussed the typology of negative indefinites. Bernini and Ramat (1996: 117-203) base their analysis only on European languages. Kahrel, on the other hand, selects a broader corpus that includes languages from different linguistic families. In his study of negative indefinites, Kahrel (1996: 36-67) mentions the existence of five types of negative indefinites: NEG + indefinite (Eng. *not some*/ Swed. *inte någon*), NEG + special indefinite (Eng. *not anyone*), inherently negative indefinite without NEG

(Engl. *nothing*), inherently negative indefinite with Neg (Span. *no vino nadie* = NC), and, lastly, negative existential constructions without negative indefinite (Eng. *there is nothing that John bought*). As stated by Miestamo (2007: 565), Haspelmath views indefinites used in the scope of negation in the larger context of indefinite pronouns. He develops a semantic map for the multiple functions that can be carried out by this type of indefinites.

Figure 3: Semantically-defined contexts of indefinites (Haspelmath 1997: 4)



With this implicational map, Haspelmath proposes that every indefinite pronoun can perform one or several functions (multifunctionality) as long as these functions are adjacent to each other. Strictly speaking, negation would be carried out by indefinites with the function of direct negation (=NIs). Indefinite pronouns can also appear in other non-assertive contexts, which give way to their appearance as NPIs [41]. These contexts can be questions, conditionals, comparatives, indirect negations (= neg-rasing), and the free-choice use[42]. *Specific* and *non-specific* contexts refer to whether the speaker presupposes the existence and uniquely identifiability of its referent. Some languages have different indefinites to mark this semantic difference. Furthermore, *irrealis*/*realis* dichotomy is based on the truth value of a statement in correlation with reality. Through

[41] Haspelmath states that the term NPI (coined by Baker 1970) is not very felicitous since they are not restricted to negative contexts only. He considers that a better term should be *scale reversal items*. This takes into account the variety of contexts that allow such type of items to be included in a sentence. Indeed, as stated by Penka (2015: 9), NPI are only prototypically in the scope of negation. NPIs may occur in all kinds of contexts that are in some sense negative, i.e. non-veridical, downward entailing, anti-additive or anti-morphic (Penka & Zeijlstra 2010: 775). For a list of the environments that license NPIs, see *infra*. On the other hand, Postal (2005) suggests NPIs are expressions underlyingly associated with a negative marker, which has raised away from NPIs. Collins & Postal (2014) provide a more fine-grained conception of the implications of Neg-rasing in the origin of NPIs.

[42] Cf. infra for a definition of free choice items and their relationship with polarity.

different stages of grammaticalization, indefinites can either adopt new functions or get rid of others along the history of a language. It is very common to see that these changes in functions are promoted by the appearance of a competition in the form of a new indefinite that performs similar functions [43].

In relation with the co-occurrence of NIs with negation, Haspelmath (1997:201) provides the following typology. See examples 12a-c.

(12) (Miestamo 2007: 564-5)

a. Type I: NV-NI (strict NC), Finnish (Uralic).
E-n näe miään
NEG-1SG see CNG neg-anything
"I don't see anything"

b. Type II: V-NI (non-strict NC), Swedish (Germanic).

Jag ser ingenting
1SG see.PRES nothing
"I don't see anything"

c. Type III: (N)V-NI (optional), Italian (Romance).
Non è venuto nessuno
NEG is come-PST.PTCP nobody
"Nobody came"

Nessuno è venuto
Nobody is come-PST.PTCP
"Nobody came"

Moreover, Van der Auwera & Van Alsenoy (2018) have recently proposed a typology of negative indefinites that goes parallel to the classification of NC structure types. In this way, they consider mainly four types of negative indefinites–similarly to Kahrel (1996) and Haspelmath (1997): 1. clausal negator plus preverbal neutral indefinite (*some*), 2. clausal negator plus postverbal polar indefinite (*any*), 3. preverbal clausal negator plus postverbal negative indefinite (= NC) and, finally, 4. inherently negative indefinites (*no one*). According to their language sample, the first two types of negative indefinite strategies are the most widely attested among world languages. Far behind is the number of NC languages and only last those languages that can resort to inherently negative indefinites. Thus, Van der Auwera & Van Alsenoy find in languages a division between strict and non-strict NQ expression. Strict NQ languages,

[43] For French as a case in point, cf. Visconti and Hansen (2014).

such as Dutch, can only express negative indefiniteness by the use of inherently negative indefinites in both preverbal and post-verbal positions, as in (13a). On the contrary, English is a non-strict NQ language, given that it can also use the polar indefinite *any* in postvebal position along with preverbal negation in the expression of negative indefiniteness. See (13b).

(13)
a. strict NQ languages
nobody saw /I saw nobody **(as Dutch)**

b. non-strict NQ languages

nobody saw / *I saw nobody* / *I did't see anybody* **(as English)**

The strategies observed in the world languages for the expression of negative indefiniteness depend on two very important factors: mainly, the NegFirst principle that is among the main reasons of preverbal and negative indefinites, as already discussed, and whether we are dealing with preverbal or postverbal sentential domains, as can be summarized in the Table 6 [44]. As mentioned before, patterns 1. (I (*some*) > NV) and 2. (NV > I (*any*)) are the majority strategies.

Table 6: Preverbal and postverbal domains and (negative/polar/neutral) indefinites

PREVERBAL	POSTVERBAL
NI > V or **I > NV**	V > NI or **NV > I**

1.4.2.5 Negative polarity items and free-choice items

As mentioned, Giannakidou (1998:17) defines polarity as an item α that is an expression whose distribution is limited to sensitivity to some semantic property β (e.g. non-veridicality) of a context *c* of appearance. Therefore, α can be defined as an expression with lexical semantic "deficit". This semantic dependency also undertakes licensing in which the proper interpretation of α (i.e. an indefinite) in a context *c* (i.e. semantic context) requires the relationship (α, β) to hold up in *c*. If the proper interpretation does not take place, then the relationship between α and β does not hold. As it is shrewdly observed by Giannakidou (2011:1690) following Ladusaw (1996), polarity raises the issue of semantic well-formedness in a model of grammar that points

[44] For more varieties of NQ structures and their interaction with NC typology, Cf. Van der Auwera & Van Alsenoy (2018: 107-146).

to the conjunction of syntactic and semantic well-formedness. Crosslinguistically, polarity items seem to exist in virtually every language we consider, as has been proved by Haspelmath (1997)'s survey.

Jäger (2008, 2010) defines a typology of (negative) indefinites within the parameters of polarity sensitivity. She assumes some concrete semantic licensing contexts that trigger the presence of polarity elements in a given sentence: negation, downward entailing [45], as proposed by Ladusaw (1980, 1996), and non-veridicality, as proposed by Giannakidou (1998, 2001, 2011). Downward entailing or monotone decreasing permits inferences from more general to more specific properties, as in (14) [46], and it constitutes a generalized notion of negativity, which not only comprise the scope of negation but many other linguistic contexts (Penka 2015: 12).

(14) (Penka 2015: 11)
a. John doesn't own a dog →
b. John doesn't own a poodle.

On the other hand, (non)veridicality, as defined by Giannakidiou (1998), is a property of propositional operators in terms of truth entailment [47]:

i. A propositional operator (*Op)* is *veridical* iff $[Op\ p]]_c$ entails *p* in some epistemic model
ii. If *Op* does not entail *p*, *Op* is non-veridical.
iii. If *Op* entails not *p*, *Op* is antiveridical (e.g. *not*, *without*).

It is understood that non-veridicality, as a polarity theory, involves licensing and that this involves at the same time semantic scope that entails an expression α being in the semantic scope of an expression β iff the interpretation of α is affected by the semantic distribution of β (Giannakidou 2001: 104).

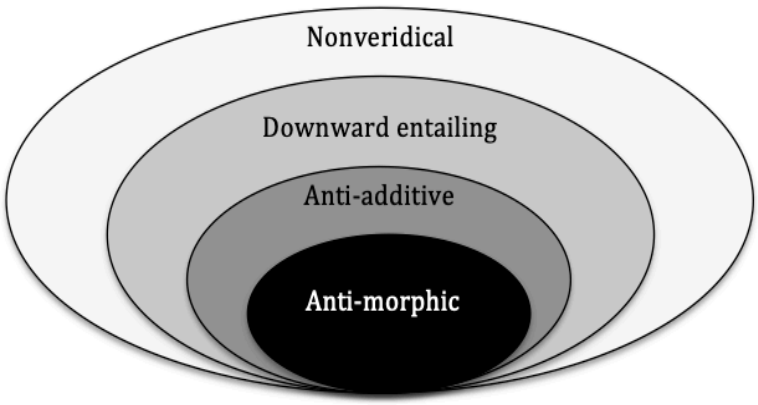
[45] Cf. Strawson downward entailment (von Fintel 1999) for *only* as a licensor of NPIs. There are also anti-additive operators between classical negation, which corresponds to the strongest context within the hierarchy of negative contexts, and downward entailment, which constitutes the weakest notion of negative strength.
[46] This principle goes the opposite direction as the upward entailing: John owns a poodle > John owns a dog.
[47] Cf. also Penka and Zeijlstra (2010: 774).

(15) Modern Greek, Indo-European (Penka 2015: 13)

Prepi na episkeftis kanenan jatro.
Must.3SG SUBJ. visit any doctor
"You must visit a doctor"

Zwarts (1996) and Van der Wouden (1997) elaborate a hierarchy of negative contexts (see Figure 4) and propose a more fine-grained typology of negative contexts They propose anti-additive operators (*nobody, nothing*) between classical negation (*not*: antimorphic), which corresponds to the strongest negative context, and downward entailment, which constitutes the weakest notion of negative strength. Furthermore, to this 'negative' hierarchy, Giannakidou adds non-veridicality as a relevant semantic property that explains the presence of NPIs in non-downward entailing contexts, as in (15). Giannakidou sees this principle in play in Modern Greek and English and conceives it as a weaker notion of negativity than downward entailment.

Figure 4: The negative/non-veridical hierarchy of polarity items (After Giannakidou-Zeijlstra 2017:4).



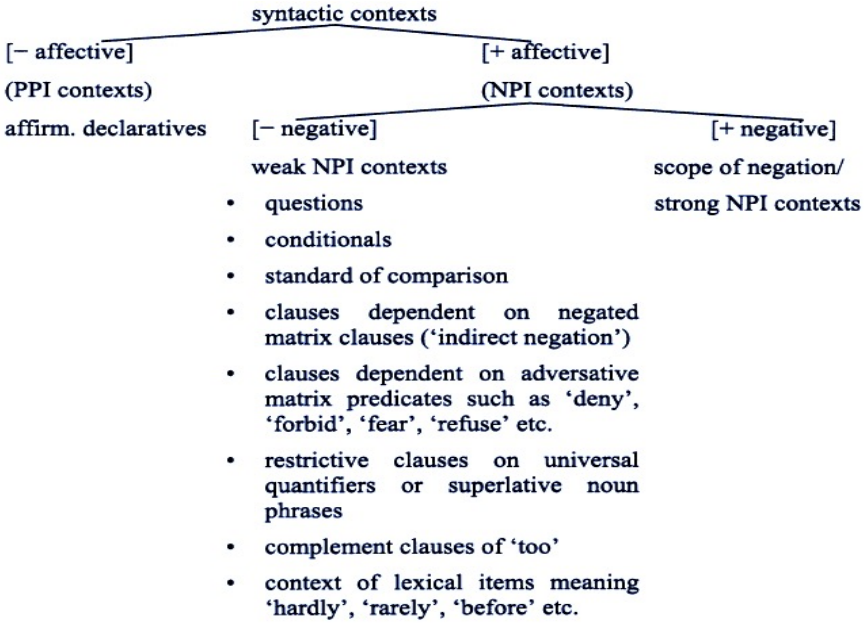
Therefore, semantic contexts explain the presence or absence of indefinites pronouns acting as NPIs. Jäger characterizes indefinites pronouns with a [± affective] [48] and [± negative] features that would lead to their presence in affective contexts, as we can see in figure 4. Note that indefinites with [+ affective] feature are not semantically affective by themselves but due to their presence in affective contexts. The three basic polarity types of contexts are: 1. negative contexts, 2. non-assertive/affective contexts, and 3. affirmative contexts (from more negative to more positive). In the case of negative contexts, there is the concept of "negative dependency" that can be defined as

[48] Cf. Klima (1964), Haegeman (1995: 89-90).

the relation that characterizes a linguistic expression α, the negative dependent –such that, in order for α to be licensed, the presence of negation is required in a clause or sentence, i.e. α must be in the scope of negation (Giannakidou-Zeijlstra 2017:1). As pointed out by Giannakidiou, in some cases α strictly requires the presence of negation, but in others the dependency is of a broader nature and α can appear in non-negative environments such as questions, conditionals, imperatives, modalities, etc. At the same time, not all NPIs can appear in the non-negative affective contexts, so there seems to be "strong" NPIs that are only licensed by negatives and "weak" NPIs that are licensed by other non-negative contexts [49]. According to Jäger's scheme, proper positive contexts entail [- affective, -negative] features that correspond to positive polarity items (PPIs) that have the property of not being able to scope below negation given its highly referential nature. Some instances of PPIs are *some* and speaker oriented adverbs such as *unfortunately* or *possibly*. According to Ernst (2009: 61), who is followed by Giannakidou (2011:1702), there are three types of indefinites according to positive polarity: strong PPIs which are blocked in all non-veridical contexts, weak PPIs which are blocked in antiveridical contexts but allowed sometimes in nonveridical non-negative contexts, and non-PPIs which are allowed in all nonveridical contexts.

[49] As it has been shown, negativity is a gradable property. Negativity as a scale: < DE, antiadditive, antimorphic>. Notice that, as can be seen in Figure 4, all negative contexts (classically and minimally) are also non-veridical together with non-negative contexts.

Figure 5: Main polarity types of contexts (Jäger 2008: 152; 2010: 790) [50]



Thus, Jäger (2008, 2010) distinguishes several types of indefinites with respect to negation, polarity, and semantic contexts. Although she centers in the diachronic changes from one polarity type to another, she offers a clear-cut view of the polarity types in the domain of indefinites: 'normal' or PPIs indefinites *somebody*, NPI indefinites *anybody*, and NIs (= n-words) *nobody*. As illustrated in Table 7, Jäger correlates lexical features specification and types of indefinite. Finally, it should be noted that there are indefinites that are neither negative nor positive polarity items. These indefinites rendered in English also by the *some*-series are considered by Jäger as "normal indefinites", this is, non-polar elements that, by definition, do not comply with any kind of semantic restriction in their distribution.

Table 7: Polarity types of indefinites (Jäger 2010: 791)

lexical feature specification	types of indefinite	examples
[ ]	'normal indefinites/ PPI indefinites	*somebody,something, somewhere, some*
[+affect]	NPI indefinites	*anybody,anything, anywhere, any*
[+affect, +neg]	n-indefinites (in NC structures)	*nobody, nothing, nowhere, no*

[50] For a complete list of polarity environments and their distribution as affective, free-choice, negative polarity items, and subjunctive relative clauses, cf. Giannakidou (1998: 163) and Giannakidou (2001a: 112; 120), Giannakidou (2001b:674), Ginnakidou (2011: 1674).

Notwithstanding, something goes missing in Jäger's specification of polarity items. There is no mention to free choice items (FCIs), which are also polarity items that, being of a non-episodic nature, are only grammatical in contexts providing alternatives (worlds or situations) [51]. Therefore, FCI are unacceptable in veridical– similarly to negative polarity items– and episodic contexts. Variation is an important feature of FCIs and it means that the FCI variable must be assigned distinct values in each world or situation we consider (Giannakidou 2001b: 699). This requirement of exhaustive variation would explain the quasi-universal readings of FCIs that closely resembles the semantics of universal pronouns such as *every* [52]. Giannakidou & Cheng (2006: 141) notice that this is not exactly the case for FC *wh*-ever free relatives (*whoever*, *whatever*, *wherever*, *whenever*, etc.), which, according to Horn (2000: 71-107) have the status of fully-functional FCIs. Notably, Cheng & Giannakidou (2006: 157-8) refer to the "expectation of existence" as the marked difference between nominal FC (*anyone*) and free-relatives FC (*whoever*/*anyone who*). Cheng & Giannakidou (2006: 155-6), in their assessment of *wh-ever* FC items, conclude that FC relative clauses are actually definite by nature and that they lack polarity sensitivity due to the fact that they are licensed in episodic contexts, unlike nominal FCIs. Nevertheless, in my text analysis I will consider *wh*-relatives as normal FCIs.

Haspelmath (1997: 48) asserts that many languages have a special series of indefinite pronouns to express the meaning of free-choice. He describes them as prosodically prominent and semantically non-specific. Their most typical environments are sentences that express possibility or permission (imperatives), sentences that can be interpreted generically, hypothetical and counterfactual sentences, or sentences expressing sufficient conditions, habituals, future sentences, modals verbs, etc. These elements, which are taken by Giannakidou (2001b: 6-7) to be existential indefinites and not universal quantifiers, cannot occur in negative (when episodic), interrogative (when episodic), or positive contexts (i.e., veridical contexts). All of these contexts have the common feature of involving a single event in an extensional context, contrasting with intentionality and exhaustive variation characteristic of FCIs. According to Giannakidou

[51] A sentence is episodic when it is about exactly one event that happens at a particular time, mainly when the verb is in a preterite tense.

[52] Cf. Haspelmath (1995) for the FC origins of "all" and "every". There is strong tendency in world languages to develop universal values "every" from FC indefinites "any" (Haspelmath 1997: 154-6).

(2001b: 673ff), FCIs are also subject to non-veridicality, as an affective element, and to episodicity constraints [53]. Here I provide Giannakidou's licensing condition of FCIs:

Figure 6: Licensing condition on FCIs

A FCI α is grammatical in a sentence S iff:

i. α is in the scope of a nonveridical operator β; and

ii. S is not episodic.

As mentioned, Cheng & Giannakidou (2006: 157-8) refer to the "expectation of existence" as the marked difference between nominal free-choice (*anyone*) and free-relatives free-choice (*whoever*/*anyone who*). In (16), both clauses have free-choice items, *any* and *whichever*, but their interpretation differs. Cheng & Giankidou (2006:157) state: "The sentence (16a) with *any* is a neutral statement expressing my desire not to talk to *anybody*, and there is no expectation that somebody will actually call. The one with *whichever student* (16b), on the other hand, seems to favour (but not require) a context where there is indeed an expectation of a call".

(16) (Cheng & Giannakidou 2006:157)

a. *If any student calls, I am not here.*

b. *Whichever student calls, I am not here.*

In the same line as *wh-ever* free-choice indefinites, it seems that also relative-correlative constructions are suitable to convey the free-choice meaning, as in (17).

(17)

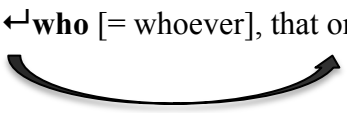
Who*(*ever*)** *follows my commandments,* ***him *our Lord will save him.*

The demonstrative pronoun, acting as a resumptive element, picks one of the possible worlds where the state of affairs is allegedly going to take place out of *x* number of alternatives, marking the restrictions adhered to the plausible election of one alternative. So, the demonstrative acts as if it were a domain widening particle *-ever*

[53] Another feature of FCIs is their inherently intensional nature, which marks the difference between them and regular existential indefinites. Intensionality is a subcase of non-veridicality. Therefore, it is logical to conclude that, in communion with variation, intensionality makes sure that episodic past will always block the possibility of invoking *i-alternatives*, thus FCIs becoming ungrammatical in such contexts. Giannakidou (2011b: 51) concludes that the semantics derives the universal-like readings and the limited distribution of FCIs in non-veridical and non-episodic contexts from their lexical properties of intensionality and exhaustive variation.

present in *wh*-relatives. When a relative clause is not correlative, then the free-choice meaning is not there and it turns up to be a normal relative clause. Likewise, languages such as Modern Greek would instead have a normal relative clause with *opjos* (in place of *opjosdhipote*). On the contrary, in English, (16b) would be ungrammatical without the -*ever* particle.

Figure 7: Relative-correlative structures and free-choice meaning



A final note is due regarding the diachronic development of FC indefinites into other non-specific and specific indefinites. Free-choice indefinites are in the highest ranks of non-specificity. However, it is possible to observe in the diachronic development of a given language how FC indefinites can evolve into more specific indefinites such as (negative) polarity items and, even, existential indefinites that are *specific* by nature. Haspelmath (1997: 150) coins this phenomenon as *diachronic extension from free-choice* or *weakening*.

In this last section, I have highlighted in the last two sections the nature of negative indefinites and of polarity indefinites in their different variants: negative polarity items, positive polarity items, and free-choice items (nominal and relative). Thus, in my text analysis I will follow Haspelmath's distributional semantic map of indefinite functions and his concept of multifunctionality. This will go parallel to Jäger's polarity types and Giannakidou's approach to polarity distribution in the light of her non-veridicality theory. I believe the combination of these three typological approaches can greatly improve our understanding of the relationship between indefinites and negation (and other semantic contexs) in early IE languages.

1.4.3 Negative coordinates

According to Payne (1985b: 3) all languages, seemingly without exception, possess strategies that permit various types of coordination at the phrasal as well as the sentential level, thereby forming complex phrases of various grammatical categories. Coordination refers to the syntactic constructions in which two or more units of the same type are combined into a larger unit and still have the same semantic relations with other surrounding elements (Haspelmah 2007:1). The units combined in a

conjunctive coordination are called conjuncts, and more generally, the units of any coordination will be called coordinants (Haspelmath 2007:2). Coordinates, or connectors, are also elements that perform morphological incorporation of negation (de Swart 2010:118) [54]. Thus, there are two main types of linkage mechanisms: asyndetic coordination[55], which is accomplished by the juxtaposition of morphological/clausal elements, and the overt linking device by way of a coordinator, this means syndetic coordination. The last one can be further subcategorized as monosyndetic (*and*) and bisydetic (*both…and*) and its position can be either prepositive or postpositive. Bisyndetic or polysyndetic coordination is reckoned as emphatic.

Many languages have special correlative coordinates that are restricted to the position in the scope of negation (Haspelmath 2007: 17), as in (17).

(17) (Haspelmath 2007: 17)

a. *Neither Brahms nor Bruckner reached Beethoven's fame*.

b. *Brahms and Bruckner did not reach Beethoven's fame*.

Negative coordinates can be formally related to negative disjunctive coordinator like English (*neither…nor*) or conjunctive coordinator like Latin (*neque…neque*). Empahtic negative coordination can also express contrastive negative coordination when coordinating two noun phrases. When coordinants, defined as two or more units of equal rank, are clauses, this connection consists in parataxis. In many languages coordinants are relevant for the choice of the coordinators according to their semantic-syntactic type. Notwithstanding, there are languages that lack a distinct set of negative coordinators. They would use 'positive' conjunctive coordinators and negation separately as a means to express negative coordination "and not" or just the asyndetic repetition of the negative marker like in Basque: *ez*…(*eta*) *ez* "not….(and) not"[56]. According to Bernani & Ramat (1996:102), it is only a minority of languages that mark in the same way standard negation and negative coordination. Such languages are, for

[54] The most common types of coordinators are conjunction (*and*), disjunction (*or*), adversative (*but*) and causal (*for*).

[55] Payne (1985b: 25) considers asyndetic coordination an unmarked form of co-ordination, whose strategy is available to all languages.

[56] Cf. Urquizu (2013: 288-9).

example, Sardinian, Rhaeto-Romansh, Friulian, Russian, etc. [57]. However, the vast majority tend to mark with a negative coordinator both nominal and sentential negative coordination.

According to Bond (2011: 3), building on Bickel (2010), the position (locus) and the scope of the negation can be particularly important in the description of negation and coordination. The domain of coordination in the scope of negation depends on the common subject marking, on the common tense usage, or on the illocutionary force, which implies a correct intonation pattern that sometimes consists in the prosodic prominence given to the coordinator (it contributes to the interpretation of coordinated structures). Moreover, there are some restrictions such as Italian: *non…né* for clausal elements and *né…né* for nominal phrases (cf. Bernini and Ramat 1996: 100-1), both structures being rendered in English by *neither…nor*. Languages such as Serbian or Macedonian also follow this distribution. This raises the question whether constituents smaller or larger than the clause can be linked using the same strategy as that used to link clauses. Languages such as Hungarian display negative coordinator plus the presence of standard negation on each coordinant (= stcrict NC). Other languages that follow this pattern are Serbian, Croatian, Polish, Welsh, Breton, and Rumanian. Thus, there are semantic constraints that should be accounted for when analyzing negative coordinate structures.

Negative coordinates can act without being a correlative pair [58]. According to Mazzon (2004:103-4) in English *neither*/*nor* can be used as negative additive adverbs "not also". Sometimes, a negative connector follows an affirmative sentence. In these cases, a negative marker preceding a negative connector can be implied. Also non-assertive contexts (e.g. interrogatives and conditionals) seem to also license a negative coordinator.

Finally, I would like to note a related phenomenon called *negation in gapping*. Repp (2009) treats gapping sentences that contain a negative marker in the first conjunct, which in the second conjunct is or seems to be elided, as in (18). The main

[57] Languages of this type tend to differ in their strategies for negative coordination for nominal or sentential coordinants.

[58] *Nor* usually requires a preceding negative (or non-assertive) in order to appear, not necessarily within correlative pairs. Licensed by non-assertive contexts, it can also work as a scalar focus particle *not even*. Cf. Russian, Polish, etc.

question is whether or not this structure must be understood as having a distributed scope of negation (¬ A) ∧ (¬ B) in the different languages.

(18) Negation in gapping (Repp 2009: 42)
Max didn't read the book and Martha the magazine.

1.4.4 Other related phenomena: Bipartite Negation and Jespersen Cycle

After a brief overview of the most important elements under the scope of our study, I would like to mention some other negative phenomena that will be cited along my analysis of the texts, especially in relation to the etymology of some standard negative markers. I refer here to bipartite/discontinuous negation and to Jespersen Cycle. Van Alsenoy & van der Auwera (2014: 13-14) mark the difference between double clausal negation (DN) and NC: although the two phenomena share some striking similarities, in double negation there are two markers of negation (Fr. *ne…pas*), but in NC at least one negation is marked in a pronoun or an adverb of time, place or manner (e.g. It. *non…nessuno*). Many other languages exhibit optional double negation, the option being determined either by semantic factors (the double negation being more emphatic), or by grammatical factors (Dryer 1988: 98). Jespersen (1917:4) states in his monograph on negation the following:

> The history of negative expressions in various languages makes us witness the following curious fluctuation: the original negative adverb is first weakened, then found insufficient and therefore strengthened, generally through some additional word, and this in its turn may be felt as the negative proper and may then in course of time be subject to the same development as the original word.

Although Gardiner (1904) had been the first one to notice this phenomenon, Jespersen is attributed to have been the first to realize that languages seem to display a cyclic renewal of their negative markers. Dahl (1979:88; 2010:20) dubbed this particular diachronic phenomenon as Jespersen Cycle [59]. According to Horn (2001: 452) this principle interacts with NegFirst and the tendency of the negative marker to appear preverbally.

[59] For more contrastive data about Jespersen Cycles in a wide range of languages, see Visconti and Hansen (2014) and Willis *et al*. (2013). For a general overview, see Van der Auwera (2009).

(19) Discontinuous or bipartite negation: French, Romance (Indo-European).

Je	***ne***	*veux*	***pas***	*aller*	*a l'ecole*.
I	neg_1	want	neg_2	to go	to school

Finally, notice that double sentential negation (DN) as in French "*ne…pas*", should not be confused with a double negation reading, like in (20), where the semantic cancelling-out of the negatives expresses an emphatic assertion.

(20) Double negation reading
*I do**n't** want to do **nothing***,

1.4.5 Negation and Contact

Before bringing to an end the description of what is going to be our typological framework, I would like to say a few words about negation and language contact. Contact linguistics in the field of negation has not been a frequent topic of research. It seems, according to our data, that as a result of contact between two languages the system of negation of one language can be interfered and heavily influenced by another. As mentioned, our interest in the diachronic description of the Elamite language is based on what it can be said about the transformation of this language due to Old Iranian influence. In many respects, as we will see, Achaemenid Elamite is a morphologically modified version of this language mainly employed by Iranian scribes for administrative as well as for propagandistic purposes. Achaemenid Elamite goes around the edge of being considered a creole language, although it seems more reasonable to reckon it as a mixed language like *Media Lengua*, Spanish vocabulary and Quechua grammar. Taking into account that scribes in the Ancient world were mostly plurilingual, linguistic dominance, that is, the language is which a speaker is more proficient, plays an essential role in discerning the ways in which a certain language can modify another. Also, this grammatical restructuring implies the transfer by imposition of morphosyntactic features from a source language to a recipient language. In this transfer, a speaker activates the structural features of his or her dominant language in acquiring a second language and, in doing so, transfers some of the features to his or her version of the recipient language. The Elamite versions of Achaemenid Royal Inscriptions serve as a reflection of Old Iranian morphosyntax, as already has been suggested in the literature. I will propose that negation will be another case in point. Language contact takes the form of textual interference that portrays bilingualism of

scribes in Ancient Iran. Eventually, Achaemenid Elamite might be the result of a language shift by Old Iranian population, which acquired Elamite as a purely written administrative language and effectively changed its configuration as a recipient language.

1.5 Methodology

In this section I intend to provide the methodology that I am going to use in the analysis of each language.

a. To account for the previous literature dealing with negation:
    - First grammatical studies
    - Monographs and articles
    - Most recent grammars
b. To carry out a morphological analysis of every occurrence of standard negation, negative coordinate, and (negative) indefinites. As explained in the previous sections, I also take into account indefinites that are not negative, but can be elicited by other similar semantic contexts. In each language, I will describe, when attested, the different syntactic negative phenomena described above. I repeat that only the negative particle used for declarative sentences is the center of this study. In spite of this, I will be considering the prohibitive particle, especially in what concerns the negator selection. I will start providing a list of the negative forms available for each language and I will discuss their IE etymology. After this, I will propose the diachronic origins of the negative marker. Next, for each morphological category I will dedicate a section, where I will provide examples of each negative form, and I will treat at length the syntactic patterns that these forms seem to follow. When attested, I will treat other negative phenomena, especially in their involvement in the creation of negative forms.
c. To sketch a diachronic overview[60] of negation in the history of the languages, especially focusing on the developments from the earliest stages of the language. For this, I will consistently consider qualitative data from Classical Greek, Middle Persian and Classical Sanskrit.
d. To provide, when needed, parallel examples from other old and modern IE languages in order to support the description of our language data. In chapter 4, I

[60] Dryer (2006:56): a theory of why languages are the way they are is fundamentally a theory of language change.

will discuss in greater detail the negative and indefinite systems attested in other IE languages outside my corpus.

e. To suggest common features between the languages analyzed. In the conclusions, I intend to set out a comparative view between Greek and Indo-Iranian and other IE languages, especially in relation to the negative particles, indefinites, and the phenomenon of polarity as attested in each language.

1.6 Indo-European negation, indefinites, and instrumentals [61]

As in many languages of the world, IE negation is expressed by means of particles, which are part of a set of morphological forms that share roots with pronominal stems in opposition to nominal-verbal ones, as pointed out by Adrados (1975). According to Mendoza (1998:13) a particle should be defined as an autonomous element, sometimes of clitic nature, that introduces modifications into the verbal form or proposition. In spite of the appearance of a negator in nominal phrases (sometimes due to ellipsis of the verb), negation is a essentially a sentential modifier and, as in the case of other particles, its meaning derives from its relationship with the verbal finite form. The IE particle system, most clearly observed in the earliest attested IE languages, i.e. Anatolian, Indo-Iranian and Greek, contributes to the categorization and demarcation of sentential boundaries and to the construction of a syntax. However, with the passing of time, particles give way to a verbal morphology and to a syntax characterized by conjunctional and preverbal constructions. Given the fragility of particles due to their small phonetic weight, their gradual disappearance in favor of a verbal morphology favors their weakening and clitic use. Negation, nevertheless, seems to be more resilient to these factors and it is this resilience shown by negative particles that indicates their outstanding importance in a linguistic system. Instead of weakening, IE negative marker are reinforced not due to their phonetic weakness, but for the sake of emphasis [62].

Horn (2001: 448) establishes that it is not clear whether the two negators in ancient IE languages descend from the same or different PIE sources, and –in the former event– when, how and why the split might have occurred. Nevertheless, two

[61] For more information on IE negatives, cf. Adrados *et al*. (1998: 16), Meier-Brügger (1992: 108ff), Beekes (2011: 248), Clackson (2007:162-4), Adams & Mallory (2006: 62, 422), Fortson (2006:133; 149; 331).

[62] For a definition of particle and its complexities, cf. Pinkler 1986, Berenguer 2000, and Dunkel 2014.

negative markers are reconstructed for PIE: **ne* for declarative sentences and **meh$_1$* for prohibitions [63]. Wackernagel (1920-4 [2009]: 713) explains the nasals found in both negatives as the result of a "primitive interjection of opposition accompanied by a gesture involving the contraction of the nasal muscles". Also considered by Delbrück (1897:524-529), it is the form **ne-íh* that must represent a later negative formation in the historical languages working as a strengthened variant of the standard negation (Lehmann 1973:20). Similar implications should be considered regarding **ne-éh$_1$* (> Lat. *nē*) formations. As we will see below and in the next chapters, the use of instrumental suffixes for strengthening negative markers is a common feature shared by most IE languages.

Dunkel (2014: 514, 530-5) proposes the ablaut *e*/*o* for the negator invested in declarative sentences. The *o*-grade [64] would complement the traditionally reconstructed *e*-grade and zero grade (**n̥*), the latter being confined to nominal as well as to verbal compounds. Against Dunkel, Mendoza (1998:5), following Adrados (1975), considers that the *o*-grade should be exclusively included within the pronominal category. The main distinction between the two negators is that one of them (**ne*) consists in the standard negation and the other (**meh$_1$*) is mainly invested in directives. Horn (2001:447) discusses IE languages negatives as one more example of the typologically frequent pattern in which two descriptive negators are differentiated, one occurring in indicative and/or main clauses and the other, far more restricted, in certain contexts such as imperatives or types of embedded clauses. For the functions and semantics of **me-h$_1$* and **ne*, cf. Dunkel (2014: 542-449; 513-518).

I already mentioned the idea behind the concepts of negative attraction, which consists in the attachment of a negative morpheme to the first possible element in a clause, and of negative absorption, in which the verbal negation is, so to speak, absorbed into indefinites, adverbs, or conjunctions. Such phenomena also take place in IE languages. I will show in the following chapters that the instrumental suffix *-h$_1$* is invested in this operation of negative attraction/absorption between a negator and an indefinite pronoun/adverbs derived from the interrogative stem for the formation of new negative markers.

[63] For all attested negative forms, cf. Pokorny (2005), Dunkel (2014: 511-513; 530-542). For an alternative etymology of **meh$_1$* and a new proposed original prohibitive particle, cf. Plötz (2017), who actually proposes the deverbal origin of the prohibitive marker via Jespersen Cycle.
[64] Hitt. *natta* and Lat. *nōn*.

Negative particles develop coordinating values on a secondary stage. Parataxis, depending on the language, can be either expressed by the collocation of negative marker plus an enclitic particle (e.g. *-k^we, *-*we,* *-*yo*) [65] or by the simple asyndetic repetition of the negative marker. According to Mendoza (1998:211) and Berenguer (2000:455), it seems logical to assume that in the most archaic stages of the proto-language asyndetic constructions represent the most basic means of expressing parataxis (i.e. syntactic constructions that promote the union of syntactic elements of the same rank, either clauses or sentential constituents). In a later stage, IE shows signs of more consistent syntactical constructions where, in order to express the coordination of two or more elements, the use of conjunctional particles is more and more frequent. As pointed out by Berenguer *-k^we, for instance, should be interpreted as an explicit emphatic element marking the connective relationship between two elements [66].

In the case of the prohibitive particle, there is evidence of conjunctional as well as subordinating uses of *meh_1. Hamilton Fowler (1883), the first to systematically collect and study all the negative markers attested in the historical IE languages, notably proposes a six-fold division of negatives according to their syntactical functions: 1.Prohibitive, 2.Convictional, 3.Conjunctional, 4.Negative of dependent sentences, 5.Conditional, and 6.Interrogative. Among them, he highlights the use of the prohibitive negator as a subordinating conjunction. Hamilton Fowler (1896:36-7), Delbrück (1897: 520), Dunkel (2014ii: 517) all agree that the conjunctional use of *meh_1 did not belong to the parent speech, but it must have been a later development. According to this view, the conjunctional use of *meh_1 is based on the reinterpretation as hypotaxis of two paratactic constructions (Mendoza 1998: 223). Some of these conjunctional uses are consecutive/final conjunction, complementizer with *verba timendi* (losing its negative meaning), and marker in yes/no questions structures [67]. Finally, among the IE

[65] Cf. Bernini & Ramat (1996) for the "iterated" use of syndetic negators– or what Dennistion (1934:503) came to call "responsive" use.

[66] After a cross-linguistic checking of the data there is reason to believe there are different levels of grammaticalization for particle *-k^we. We can see traces of other semantic values, probably chronologically older than the connective, which represents its most advanced stage of grammaticalization namely, connective coordination. Dunkel (1982: 129-143) states that generalizing values could be derived from an indefinite function. Nevertheless, he deems it impossible to derive the connective value from this indefinite function. Berenguer (2000), however, considers that it is possible to derive all semantic functions (connective and non-connective) from one morphological form, this is, *-k^we. This would imply a gradual and unidirectional grammaticalization through different stages. Cf. Keydana (2017:2215-16) for its function as a complementizer in PIE.

[67] This function is carried out not only by *meh_1, but also by **ne*.

grammatical categories more prone to the introduction of negative elements, we must consider negative indefinite pronouns (Wackernagel 2009:712-720) that, according to Haspelmath (1997: 194), are able to operate as sole negators, i.e. without the assistance of SN. The pronominal interrogative and indefinite stems ***k*^{w}*o-/k*^{w}*i-* are the basis for the creation of most indefinite pronouns, adverbs, and determiners [68]. Mendoza (1998:95) and Bernini & Ramat (1996:29) suggest that a form ***ne-k*^{w}*i/o* should be reconstructed to proto-language, since this form appears to be of great antiquity: Hitt. *UL kuiš* Ved. *nákis*, AV *naēciš*, Lith. *nekàs*, Myc. *o-u-ki-*, Lat. *nequis*, OCS *nikuto* [69]. Nevertheless, negative coordination, negative subordination and negative indefinites seem to be secondary developments in the historical IE languages [70].

Table 8: Standard negation and prohibitive particles in early IE languages

	Standard Negation (for declarative sentences)	Prohibitive Negation
Hitt.	*natta*	*lē* (*UL*)
Luw.	*na/ naa̯a*	*niš/nī*
Pal.	*nī/nit*	*nī/nit*
Lyc.	*ne/nepe*	*ni/nipe*
Lyd.	*nid/nik*	*nid/nik*
Ved.	*ná*	*mā́*
OAv.	*nōiṯ*	*mā*
YAv.	*nōiṯ*	*mā*
OP.	*naiy*	*mā*
Gr.	οὐ(κ)	μή
Arm.	*oč*	*mi*
Toch. A	*mā*	*mār*
Toch. B	*mā*	*mā*
Alb.	*nuk/as*	*mos*
Phry.		?*me*
Messap.		?*ma*
Lat.	*nōn*	*nē*
Umbr.	*nep*	*nē*
Osc.	*nep*	*nē/nep*
Gaul.	*ne/ni*	*?ni*
Irish	*ni*	*na*

[68] Languages such as Hittite and Latin also use this stem for relative pronouns.
[69] For a complete list of indefinite formations, cf. Dunkel (2014ii: 452-479).
[70] For a general view of (negative) indefinites in early IE languages, also cf. Delbrück (1893: 511-521).

Goth.	*ni*	*ni*
OCS.	*ne*	*ne/ni*
Lith.	*nè*	*nè*

As can be observed in Table 8, although a two negator system is well attested in the different IE languages, there are formal, semantic, as well as modal variations in the different languages. The Anatolian family shows some diversions from the reconstructed negators, especially in relation to the prohibitive negative: Hitt. *lē* and Palaic, Luwian, and Lydian apical nasal forms. Other language families have allegedly replaced the standard negative marker **ne* with other derived forms, as is the case of Armenian and Greek (see below about the origins of the Greek particle). Also, there are languages where the prohibitive particle shows an apical nasal as it is the case of part of the Anatolian languages, cf. Latin and Celtic. On the other hand, there are some languages that make no distinction between the declarative and the prohibitive markers transferring the prohibitive to the declarative (cf. Tocharian A/B) or the other way a round (cf. Balto-Slavic). Finally, it must be noticed that in most IE languages negative particles are reinforced by other particles or pronominal stems, with the only exceptions of Vedic, Gothic, Lithuanian and OCS that seem to be resistant to the attachment of any strengthener in univerbation with the negator. However, a great deal of languages fit with the linguistic typological description that subscribes to the idea of the strengthening of negation, which is a common denominator in the world languages. Thus, given the earliest attestations of IE languages, it seems that at a very early stage, IE negative particles began to be reinforced by different means. Wackernagel (2009:716) and Bernini & Ramat (1996: 30) mention the need for negative particles to be reinforced by other elements due to its precarious state on account of its phonetic and morphological weakening. Jespersen (1917:4) also asserts the predisposition of negative particles to evolve so that the speaker can develop reinforcements that enable a negative marker to recover its phonetic value. Nevertheless, crosslinguistic evidence points out to the fact that it is more plausible that such widely attested reinforcements of negative markers are, in several cases, due to emphasis motivated by pragmatic reasons rather than to the loss of phonetic weight of the negative element (Hansen & Visconti 2014:3, 70, 90; Chatzopoulou 2019).

Traditionally, it has been argued that the main difference between both negators is their use of moods. Thus, the prohibitive particle has been labeled as “modal” and the

standard negation for declarative sentences as "non-modal". If we turn to the Old Indic data, the *Rigveda* (RV) attests *mā́* almost exclusively conjoined with the injunctive mood and so it is in Old Avestan (*Gathas*) (Dellbrück 1897: 519), which represents the oldest Old Iranian texts, chronological contemporary to RV (c.a. 1500 BCE). Injunctive is formally an unaugmented verbal form with secondary endings that can be made from present, aorist, or even perfect stems. There are three clear functions of the injunctive in the RV: a. it features in prohibitive sentences, b. in general statements, and c. in preterital structures [71]. For such constellation of values, Gotō (2017:361) affirms that its principal function is simple reference of information that everybody knows, of general circumstances or of the truth without limitation to some period. Gotō's description of injunctive seems to be clearly influenced by Hoffmann's (1967) functional definition of injunctive. He deems that the common denominator at the center of the three values mentioned above is the concept of "memorative" or "Erwähnung". However, Willi (2018: 397-413) rejects Hoffmann's view of a "memorative" and "atemporal" injunctive and suggests that injuctive should be reckoned as "omnitemporal" and that unaugmented formations such as injuctive can also be used in past-referencing narratives [72]. Moreover, Tichy (2006), following Hoffmann, considers the injunctive to have been extratemporal and Kiparsky (2005) characterizes injunctive forms as "without mood". Therefore, for them injunctive is in need of acquiring these verbal categories from context. Moreover, Hamilton Fowler (1896: 39) does agree with the fact that the injunctive should be reconstructed for a prior stage of the language, although he tightly connects it with particle *meh_1 by saying that "the proethnic method of expressing prohibition and negative wish was by means of *meh_1 and the injunctive". Since there also are so-called remnants of injunctive formations in Slavic, Albanian, Tocharian, and Greek, several authors have suggested that the injunctive mood should be reconstructed for PIE. Jasanoff (2003), for instance, in his discussion on the Hittite verbal system takes for granted the existence of this mood in the proto-language. So does Willi (2019) who makes clear that an early PIE injunctive mood should be reconstructed, taking into account that Old Indic injunctive is a relic category only displaying values that are the result of the recession of functions, which were carried out by an original PIE injunctive and were eventually taken over by other moods and tenses.

[71] Willi (2018: 398-99).
[72] One of the core conclusions in Willi's treatment of augment in early Greek and Vedic is considering the augment not as a past-tense marker, but as a marker of aspectual perfectivity.

Other authors, on the contrary, reject this on the grounds that its existence only depends on the contrast with augmented verbal stems (i.e. imperfects). Be as it may, as proved by looking at other IE branches, particle *meh_1 mostly plays along with *irrealis* moods such as subjective and optative, and with imperative.

Notwithstanding, Willmott (2007) casts doubts on whether modality and mood choice are the best condition for differentiating both negative particles and, thus, she seemingly argues that there is something else invested in the negator selection. There are usually four moods reconstructed for PIE: indicative, imperative, subjunctive, and optative (considering that only Indo-Iranian portrays a more or less systematic use of injunctive). Despite Delbrück (1897:521) considers **ne* the negation of declarative sentences and the indicative its right mood, historical IE languages display a certain disparity in their uses of mood together with negation: **ne* not only negates indicative ("the mood of assertions") verbal formations, but also other *irrealis* moods such as subjunctive, optative, and imperative, although with much less assiduity. A case in point: Lehmann notices the interchangeability of moods in the expression of negation within declarative and prohibitive sentences as is the case of Greek οὐ(κ) + subjunctive/optative or Ved. *ná* + injunctive. As we will see in the next sections, modality would not play a role in the negator selection. It would be up to other parameters that will account for the appearance of one negative particle or the other. In this line of thought, Chatzopoulou (2019:45-50) proposes that semantic contexts are a better starting point for the assessment of the true distinction between both negators and, therefore, for negator selection. She proposes that, despite their not being the same markers across all IE languages, licensing environments of NEG2 (= *meh_1) are always nonveridical (as explained by Giannakidou 1998).

Finally, I would like to make a brief mention of PIE word order and the place taken by negation in most early IE languages. As has been stated, Jespersen takes the NegFirst principle to be operating in most world languages. IE languages are no exception to this rule, although there are instances where a postverbal negative is posited on the right periphery (for the sake of emphasis) through the right dislocation of constituents. On the left periphery the topic position in a given sentence is usually occupied by frame-building elements such as conjunctions and other particles such as negative markers. Lehmann (1974:153) proposes an SOV word order for PIE, yet he suggests a postverbal negation. This proposal is in agreement with the findings of Dryer (1988) who asserts that crosslinguistically most languages with an SOV word order tend

to display a postverbal negation, although it is not rare to find a preverbal negation as well. Keydana (2018: 2199) agrees with Krish (1998) that PIE must have been of a SOV type [73]. Delbrück (1897:521) assumes the preverbal nature of negation, whose view seems to be borne out by most ancient attested texts: i.e. Hittite, Vedic (RV), Avestan (*Gathas*), and Greek (Mycenaean and Homer). Also, Bernini & Ramat (1996: 23) assert that there is a strong tendency for negation to appear in preverbal position. Thus, negation can be either sentence initial or in front of the verbal form. Regarding the placement of the pronominal stem *$k^{w}o/e$-, $k^{w}i$-, due to its enclitic and unstressed nature, either as an indefinite or an emphasizing particle, it is placed immediately to the right of the word it modifies or is in connection with. It occupies the Wackernagel position (second position in a sentence) mainly because it modifies the Discourse Functional-slot (Keydana 2017: 2203), which is the first and, therefore, the most prominent place in a sentence. In relation with direct negation, the oldest texts display tmesis configuration, i.e. they do not form a morphological word, so they can appear separately (with a few exceptions of negative absorption).

Lastly, I would like to provide a brief discussion of the IE instrumental semantic role and the importance of the instrumental case regarding the renewal of negative markers and the formation of polarity sensitive adverbs, concretely focusing on its specialization as adverbs of manner. It has been established that the primary meaning of IE instrumental is the comitative value [74], which, according to Luraghi (2015: 604) is encoded by the instrumental case, being accompanied in some languages by different types of adpositions or adverbs, as it is the case of Latin and Greek [75]. Most of the evidence for the reconstruction of the instrumental case comes from Indo-Iranian family that preserves the instrumental case as a distinct paradigm in the (pro)nominal inflection: -h_1/-eh_1 / -oh_1.

There are other secondary values that can also be expressed by the instrumental case such as company, agent, cause, location, direction (allative), point of time, manner, etc. The last four values are central in our treatment of indefinites, especially of

[73] Contra Friedrich (1975) who proposes a SVO word order.

[74] Similarly, Keydana (2018 2210) finds the instrumental and the sociative semantic roles to be the original values of the IE instrumental.

[75] Due to the syncretism of cases, languages such as Ancient Greek show the IE instrumental semantic role embedded in the dative case along with IE locative and, of course, the IE dative. The same happens with Latin that displays the instrumental along with the locative function within the ablative case. Notwithstanding, both languages evidence a systematic use of adpositions for the reinforcement of the expression of the instrumental semantic role. Cf. Luraghi (2001: 43; 2015: 607).

indefinite adverbs that show a clear tendency to be in connection with non-veridical semantics. According to Narrog & Ito (2007: 273-292), Narrog (2009: 593-600), building on Haspelmath (2003) and Luraghi (2001), the comitative and the instrumental values are the most important ones within the instrumental domain from where other multiple functions are semantically derived. In this line, Luraghi (2015: 604) affirms that both the comitative and the instrumental functions are deeply connected at the cognitive-semantic level.

As mentioned, the instrumental case is encoded by the use of a variety of instrumental suffixes, which, according to Narrog (2009: 598), are typically polysemous.

-(*e*/*o*)*h*$_1$ is commonly attested in the paradigmatic nominal flexion of Indo-Iranian (OAv. *xratū* "with wisdom" (-*h*$_1$), Ved. *krátvā* (-*eh*$_1$), Av. *yasnā* "with sacrifice" (-*oh*$_1$)), but it also seen in de-instrumental nouns (*rathī́-* "charioteer" from *rátha-* "wagon"), and in de-nominal adverbs of manner such as Ved. *sáhasā* "with might". This instrumental suffix is also present in adverbs such as Gr. ταυτᾶ "there" and Lat. *valdē*, *rectē* (-*eh*$_1$) Cf. Dunkel (2014i: 127-133).

-*b*^{h}*i* is a denominal suffix of an adverbial origin present in adverbs and conjuntions such as Hitt. *kuwapi* "when", Goth. *jabai* "if" or Gr. ἀγορῆφι "in the assembly", ἶφι "strongly, stoutly", θύρῃφι "outside", (Weiss 2009: 206). This instrumental suffix is very productive in the formation of the instrumental plural, which, according to Jassanoff (2008), is formed by the adverb -*b*^{h}*i* plus the true instrumental plural -*is*. Cf. Dunkel (2014i: 115-18) for a crosslinguistic overview of this instrumental suffix. Also see López-Chala (2017) and López-Chala & Luján-Martínez (2017) for the semantic roles performed by this suffix in all the IE languages that attest it.

-*ne* is a modal-instrumental suffix usually found in Indo-Iranian pronominal stems (Ved. *kéna*? "with whom?", but also in the nominal declension (Ved. *ráthena* "with a wagon"). Cf. Dunkel (2014i:149-154).

-*m*(*i*) is especially present in Balto-Slavic (Lith. *kostĩmi* "with the bones") and Germanic (Goth. *ainamma*. dat. of instrum origin), but there are also remnants of this suffix in extra-paradigmatic formations in other IE languages such as Greek and Latin (cf. Dunkel 1997), either functioning as recharacterization of a former instrumental suffix -*h*$_1$ or as an instrumental suffix *per se*. Cf. Dunkel (2014i: 137-148).

-*t* is mainly present in the Hittite nominal declension -(*i*)*t* and in Old Latin ablative -*ōd* and, according to Melchert and Oettinger (2009), probably both derived

from *-oh₁-ad* [76]. It must be stressed whereas *-h₁* represents a suffix typically present in nominal as well as verbal formations, the Anatolian instrumental seems to be of adverbial-pronominal origin and, together with the ablative, it shows indifference to number [77]. There are also some traces in Greek of de-instrumental feminine nouns such as πατρίς, πατρίδος[78] (cf. Meier-Brügger 1988) or in Vedic de-instrumental adjectives such as Ved. *rohít-* "red", (cf. Widmer 2005). It is also attested in adverbs and adpositions such as Ved. *dakṣinít* "right", Ved. *cikitvít* "with deliberation", and Ved. *sumát* "together with". Cf. Dunkel (2014i: 174-77).

We will see in the following chapters that IE languages consistently turn to instrumental suffixes for the formation of adverbs of manner [79] and that, in one way or the other, instrumental suffixes are in connection (univerbation) with interrogative adverbs, conditional conjunctions and, most importantly, negative markers. Finally, we will see that instrumentals function as polarity sensitive triggers, especially in relation with indefinites and negative markers. In Table 9, I summarize the main instrumental suffixes in IE.

Table 9: Instrumental suffixes in IE and their reflexes in Greek and Indo-Iranian

instrumental suffixes	**nominal**	**pronominal**	**pl. 1**	**pl.2**	**extra-paradigmatic**	**recharacterization**
PIE	*-(*e*/*o*)*h₁*	*-*ne*	*-*ōis*	*-*b*^{h}*i* (-*s*)	*-*t*	-*m*
Vedic	-*ā*	-*nā*	-*aiḥ*	-*bhiḥ*	-*t*	-*m*
Iranian	-*ā*	-*nā*	-*āiš*	-*bīš*	-*t*	-*t*
Greek	ῳ ω/ ῃ η		-οις -οισι	-φι (sg./pl)	-δ/ τ-	-ν

[76] See section 4.5.

[77] Similarly, other de-instrumentals formations such as Gr. θεόφιν show indifference to number, being either dative singular or plural.

[78] See section 2.1.1 and Widmer (2005: 197-8) and Dunkel (2014ii:185 fn6) for the voicedness or voicelessness of the instrumental suffix in Greek.

[79] Cf. Croft (1991) and Luraghi (2001:38) for the function of manner as a semantic value within the instrumental.

CHAPTER 2: Negation, indefinites and polarity in early Greek

2. Introduction

In this chapter, I will deal with Mycenaean and Homeric Greek data. Firstly, I will survey through the origins of the Greek standard negator *o-u-*/οὐ(κ) and its IE background. After an overview of the general features of negation, I will study the interrogative-based indefinite pronouns derived from PIE. *k^wi-/k^wo- according to the ontological category of person. I will deal with non-polarity *specific* indefinites that appear in affirmative declarative sentences with *realis* modality, and non-specific *irrealis* indefinites that show a less restricted distribution than polarity items. Included within the former group, I will analyse as well the relative ὅς τε. Later on, I will deal with polarity sensitive items such as negative/affective polarity ones. I will seemingly show that in most cases indefinite pronouns are within non-veridical semantic contexts, especially negation. I will also analize the numeral one εἷς, which can act as a generic pronoun and the special indefinite ἄλλος τις. Finally, I will treat the nominal free-choice items τις and *wh-ever* free-choice formations such as ὅς τις and ὅς κε. I also assess the role of particles τι and τε (as emphasizing and generalizing particles) and their particular connection with both negation and indefinite pronouns. I also study the negative coordinates οὐδέ and οὔτε, which in many cases work as scalar focus particles, and their role in the formation of negative indefinites such as οὐδείς. In the last section of this chapter I single out indefinite adverbs ποτε, ποθί, ποθέν, που, πῃ, πως, and πω and their polarity sensitive semantic distribution.

As regards the texts under scope, the material from the Mycenaean administrative tablets is taken from Damos database. On the other hand, the Homeric material analysed is restricted to books 1 to 6 of both the Iliad and the Odyssey. The numbers and statistics for the indefinite pronouns and indefinite relatives – τις, ὅς τε, ὅς τις, and ὅς κε– only include occurrences within these books. Nevertheless, in some cases I have included examples from other books when it turns out necessary to complement my argumentation by including examples not found in my chosen corpus. This is especially true for indefinite adverbs, the negative indefinite οὐδείς, and the collocation ἄλλος τις, since there are not enough occurrences of these morphological

formations in the first books of the Homeric poems. I have made an intensive use of the Thesaurus Linguae Graecae database, although I have followed the texts as presented in West's editions in the Bibliotheca Teubneriana– the *Iliad* (1998, 2000) and the *Odyssey* (2017). Regarding the translation of texts, in general I follow Murray's translations revised by Dimock in the Loeb Classical library, although in many cases I deviate from him and I have adopted my own translation, whenever I deemed it better suited for the texts under study.

2.1 Negation and Indefinites in Homeric Greek

2.1.1 Negative markers in Mycenaean and the origins of the Greek negation

There are three negative forms attested in Mycenaean Greek: the standard negation ***o-u-*** ("not") = οὐ, the negative coordinate ***o-u-qe*** ("and not") (**ou-k*^{w}*e* > *o-u-qe* > οὔτε) [80], and a third form, attested only once, a negative indefinite determiner: **ou-k*^{w}*i* > ***o-u-ki-*** ("not any"). Mycenaean Greek also attests alpha privative formations (ἀ στερητικόν): *a-* < PIE * *h*$_{2}$*n*-. Some examples are ***a-****e-ti-to* (ἔρτις), and ***a-****ko-wo* (κόρος) [81].

o-u*-te-mi* (x4): KN V(2) 280 ("124"), 11-14.
o-u*-di-do-si* (x15): PY Ma 90.2.2; PY Ma 120.2; PY Ma 123.3; PYMa 124.2; PY Ma 193.3, PY Ma 221.2; PY Ma 225.2; PY Ma 378.2; PY Ma 393.3; PY Ma 397. 3; PY Na 69 A; PY Na 185 A; PY Na 245 A; PY Na 568 B. (3º pl. pres. ind. act. < * δίδοσι(ν))
o-u*-di-do-to* (x2): PY Ng 319.2; PY Ng 332.2 (3º sg. pres. ind. midd. <* δίδοτο)
o-u*-pa-ro-ke-ne-[to]*: PY Ad 686 a. (3º sg. aor. ind. med. < *παρογένετο)
o-u*-wo-ze*: PY Ep 704.7. (3º sg. pres. ind. < *Fόρζει)

o-u-qe (x17):

Knossos: KN Sd 4402 + frr (x4); KN Sd 4405 + 4410 + fr; KN Sd 4412 frr.; KN Sd 4416 + frr; KN Sd 4422 (x 2), KN Sd 4450+ 4483.

[80] Chadwick & Baumbach (1963: 229); Morpurgo (1963: 221); Ruijgh (1971: 217-18); Aura-Jorro (1999: 56); Bartonek (2003: 349); Bernabé & Luján (2006: 177); Jímenez Delgado (2016: 45-6); Piquero (2017: 309-10). For all attestations: the database DAMOS.

[81] Cf. Piquero (2017) for a complete list of the alpha privative occurrences. This morphological form should be compared with the other morphological negation attested in Myc. *o-u-*. It seems evident that, on the one hand, the latter is a sentential negative marker. On the other, *a-* works as constituent negation only modifying the inner semantic meaning of adjectives and verbs. As far as I am aware, there is no *a-* together with nouns.

Pylos: PYAq 64 (x2) [82]; PY Eb 149 + 940; PY Ep539 + 1084 + 1095 + fr; PY Ep 613 + 617 + 1117 + 1119 + 1121 + 1123 + 1134 + 1152 + 1131 + fr; PY Va 15.

***o-u-ki**-te-mi*: KN V(2) 280 ("124"), 5.

The first thing to notice is that the attested negative forms are only present in the Pylos and Knossos archives, so the picture of negation in Mycenaean is quite fragmentary. Another peculiarity is the complete absence of the prohibitive negative marker, but this might be easily explained by the administrative nature of the texts (Luján & Bernabé 2006: 177).

(1) PY Ma 120 [+] 121

.1 *pe-to-no* *146 63 RI M 63 *152 27 KE M 17 [O M 1]4̣ ME 13̣50 o [qs

.2 *o-da-a2 , ka-ke-we , **o-u-**di-do-si* *146 2 RI M 2 *152[qs] O[M qs] ME

The negative marker *o-u-* is always proclitic and it is attested in *scriptio continua* together with both verbal and nominal forms. The proclitic nature seems to reflect a morphological negation where the unstressed negative marker supports itself accentually on the following word (Duhoux 1999: 233), usually a verb. A good parallel is New Persian negation *na-*, which, like Mycenaean negation, is usually in immediately preverbal position. In the three cases where we have nominal phrases with negation, the ellipsis of the verbal form can be implied, i.e. the verb "to be". It is rather surprising, though, that in Pylos negation is almost always verbal.

(2) KN Sd 4402 + frr. (128)

.a] ***a-u**-qe , a-re-ta-to , **o-u**-qe , pte-no , **o-u**-qe , au-ro , **o-u**-qe , 'pe-qa-to'* CUR[

.b]*i̯-qi-ja , / a-ra-ro-mo-te-me-na , po-ni-ki-ja , **o-u**-qe , a-ni-ja , po-si ,* [

The negative coordinate is attested up to 17 times (including *a-u-qe* = *o-u-qe*, a scribal mistake). As noted by Salgarella (2015), its function does not completely correlate with its alphabetic counterpart οὔτε. Chadwick & Baumbach (1963: 229) already pointed out to its value to be closer to οὐδέ. Ruijgh (1971: 217) asserts two aspects of *o-u-qe* that place it at odds with its alphabetic cognate: first, no univerbation between the negative marker and the enclitic coordinating conjunction, which would explain that the labiovelar would have not developed into a voiceless velar as expected

[82] Duhoux (2011: 233) asserts that it is not *o-u-k^{w}e*, but *ou-kη*.

(cf. *o-u-ki-*), being **o-u-ke* the expected unattested form. In alphabetic Greek with the only exceptions of Aeolic and Cypriot, k^we- had developed into τ (before the front vowels *e*, *i* [83]), and π (before the back vowels *o*, *a*). Fucci (2016) collects other instances where this sound change has not taken place and he notices that this phenomenon is particularly present in compounds, e.g. βούκολος < *qo-u-ko-ro-(jo)* < **g*^{w}*ou- k*^{w}*ol-o-*[84]. In the previous example, k^w does undergo delabialization due to its proximity to *u*. The data goes against Ruijgh (2011), who has objected that the dissimilation $k^w > k$ next to *u* is already evident in Mycenaean. On the contrary, in forms such as πολύβοτος < *po-ru-qo-to* < **p*(*e*)*lh*$_1$*-u-g*^{w}*eh*$_3$-, there is no trace of this dissimilation, which, according to Bernabé & Luján (2006: 90) should have taken place before the Mycenaean tablets' age, and the *q*-series is used instead. This might as well be explained as though the coordinating conjunction Myc. *-qe* has been juxtaposed to a negative and, thus, is still perceived as an autonomous particle [85], not yet fully grammaticalized along with the negative. Secondly, Ruijgh affirms that *o-u-qe* can coordinate positive and negative elements together, in the same way as οὐδέ in Homeric Greek. Salgarella (2015) supports this assumption by other parallels in the usage of *-de* and *-qe*. Moreover, Salgarella seemingly demonstrates that in several instances *o-u-qe* works as a simple negation, although she believes this to be an internal development of Mycenaean dictated by spelling matters, *o-u-qe* being more graphically demarcated in the script than proclitic *o-u-*. I believe that several uses of *o-u-qe* in these examples have the function to make syntactic negation available, instead of a proclitic-morphological one. Moreover, in KN Sd4422 we find *o-u-qe, a-ni-ja, po-si, e-e-si*. It seems evident that the main reason for *o-u-qe* to be present in this sentence is to express a focused negation over the noun *a-ni-ja*, and for this, it needs to get rid of its proclitic nature by adding the enclitic particle in order to make an independent syntactic negation. In (2), we can see that the focus of negation is over the nominatives. An example not cited above is KN Le

[83] The evolution of the labiovelar before *i* is complicated. It normally results into a labial stop, except in τις, which form is present in almost every Greek dialect, except in Thessalian.

[84] Cf. Colvin (2016: 19-20), where he postulates that the form οὔτε is not οὔκε due to analogy with Thess. οὔ-κις with dissimilation and Att. οὔ τις. Also cf. πολυ-κις > πολλάκις (Ved. *purú-cid*) and Tar. ἀμά-τις "once". Thus, the data points to dialectal/chronological patterns for the dissimilation of the labiovelar into a voiceless velar or a voiceless apical stop.

[85] Or maybe this is related to the fact that *-qe* is still in the process of evolving into a fully-developed connective particle. This fact is related to the non-connective origins of the enclitic particle **-k*^{w}*e*. Other possible values for this particle are generalizing, habitual, conditional, etc, as we will see.

641+ frr, where we can see *o-u-qe-po[*, where we could reconstruct *πόσι (< **po-ti*) [86], which, although a doubtful example, it might represent a proclitic use of *o-u-qe*. However, there are still clear examples of connective Myc. *o-u-qe*.

(3) KN V(2) 280 ("124")
.1 wo-de-wi-jo
.2-4 *vacant*
.5 to-pe-za, **o-u-ki**-te-mi X
.6-10 *vacant*
.11 a-pe-ti-ra$_2$ o-u-te-mi X
.12 **o-u**-te-mi X
.13 **o-u**-te-mi X
.14 **o-u**-te-mi X
.15 e-pi, i-ku-wo-i-pi
relinqua pars sine regulis

As stated, the negative determiner *o-u-ki-* is far from clear. Cowgill (1960)'s reconstruction *ne-h$_2$óyu-k^{w}id* as the proto-form for Greek οὐ and Armenian negation *oč΄* is well-known. This negative marker would have been formed by the inherited IE negative marker, a phasal adverb, and an indefinite-interrogative strengthener. In Greek, the negative would have been lost, the de-nominal (i.e. αἰών "life, eternity") phasal adverb would have acquired the negative semantics, and a pronominal reinforcement from the indefinite-interrogative stem (**k^{w}i-*) would have been added as an extension of the negative marker. Beekes (2010: 1123) agrees with this reconstruction and considers most plausible that Hom. οὐκί contains the IE indefinite pronoun. Aura-Jorro (1999: 56) recognizes also a negative indefinite in this form. *o-u-ki-* is proclitic and in close relationship with the noun phrase *te-mi* (τέρμις "foundation, support") that goes in connection with *to-pe-za* (τράπεζα "table"). One would have correctly expected the development of the labiovelar *k^w* into *k* (the labial appendix dissimilates) after *u*. However, in alphabetic Greek we do not witness this and, instead, we find οὔ τις in most cases, with the paramount exception of Thess. indefinite κις (Buck 1955: 101) [87]. Notwithstanding, if we assume the reconstruction **ne-h$_2$óyu-k^{w}id* to be correct, the phonetic problems are still at large, especially considering that the development *k* > *t* (*o-u-ki-* > οὔ τις) would be hard to explain. On the other hand, Ventris & Chadwick (1971:311), following Meriggi (1954), consider this form to actually represent οὐχί (< **-ǵ^{h}i*, Pokorny 1948: 417-8) as attested in Homer. According to Piquero (2017: 310), who follows Duhoux (1999: 233), it does not seem plausible that this form might be

[86] Cf. Aura-Jorro (1999: 57).
[87] An exception is also Arcadian σις with a different development for the labiovelar.

οὐχί, since there is no expressive meaning implied. I agree that the form *o-u-ki-* is most probably a negative indefinite. Notably, among Greek modern dialects, Pontic has the proclitic negative marker /k^{h}i/ that derives from οὐχί (Jansen 2002: 214) [88]. From a comparative view, there is also the Hindi standard negation *nahí* (< Ved. *nahí*) that derives from the same root as οὐχί: PIE *NEG-*ǵ^{h}i* [89]. Thus, I believe that Cogwill's reconstruction answers the main questions about the origins of the negative forms attested in both Mycenaean and Homeric Greek. The process consisting in the delabialization after /u/ was already completed during the Mycenaean tablets' age and remained mostly unchanged in alphabetic Greek until the I millennium BCE (Fucci 2015).

Some reconsideration is due, however, in respect to some details of Cowgill's reconstruction. Cowgill proposed **ne-h$_2$óyu-k^{w}id* as the proto-form for Greek (οὐ(κ)) and Armenian (*oč'*) negations –later on also considered for Albanian (*as*) by Klingenschmitt (1994: 245). There has been a long debate whether this reconstruction is the true ancestor of the negative markers of these three languages. Regarding the elision of the inherited negation, as mentioned, it reflects a very common crosslinguistic phenomenon, which consist in the loss of the negative particle whose "negativity" has been transfered to the former reinforcing particle, usually found immediately after the negator, although not necessarily. According to Hackstein (2016/2017:219), Greek, Armenian, and Albanian negative markers represent the resulting forms of Jespersen Cycle, by which the Greek negative marker has been reinforced and, eventually, substituted by the reinforcing element. As mentioned in the introduction, another well-known example is Fr. (*ne*)…*pas*, where the second adnominal element has absorbed the negative nuance to the extent of being able to appear without the presence of the original negative particle with a full negative meaning.

[88] Οἰκονομίδου (1958:102) discusses the negative form 'κί with deaspiration of the voiceless apirated stop (κ < χ). In MG, the deaspiration of consonants is a common phenomenon. Thus, here we are possibl dealing with the same negative marker, given that /k^{h}i/, according to Drettas (1999), is denied phonemic status (/k/vs /k^{h}/). Janse (2002: 214) points to some other examples: σχίζω /ʃkizo/ = / ʃk^{h}izo/. Also notice that Pontic (in the city of Ofis) has οὐ before consonant and τσί (i.e. οὐκί), οὐτς (i.e. /'udʃ/) and τσ' before vowels (Οἰκονομίδου 1958: 358; Özkan 2013:18 fn. 29). On the other hand, Pontic 'κί might as well derive directly from a negative marker οὐκί, 'κί representing the standard development of the negative marker plus an indefinite stem. Cf. Thess. κις as a parallel example for the sound change undertaken by the labiovelar in contact with *u*.

[89] According to Dunkel (2014ii:354), *o-u-ki-* could represent both οὐκί and οὐχί.

Some scholars reject deriving the Armenian form from Cowgill's reconstruction and believe that *očʻ* might be better explained as an inner-Armenian creation. Clackson (1994: 158) is the first one to cast serious doubts on the alleged negative proto-form for the case of Armenian. Martyrosian (2010: 531; 2013: 91) agrees with Clackson in that **ne-$h_2$óyu-k^wid* might not be the ancestor of Arm. *očʻ* and also calls upon an inner-development solution. Beekes (2003:178) also considers Cowgill's derivation problematic due to the vocalism and he, alternatively, suggest a proto-form **(h_2)óyu-k^we* (cf. Beekes 2003: 208). On the other hand, Hackstein (2016/7) takes Cowgill's proposal for granted and considers PIE **ne-$h_1$ara(h_2)-$h_2$oyu* to be behind phasal adverbs constructions such as Gr. οὐκ ἄρα and Hitt. *natta āra*.

Clackson notices, though, that it might be possible to propose **k^wid* as a strengthener of the Armenian negation that would have ended up acquiring its negative semantics. Clackson (2004/5: 155-6), in his review of Kortlandt (2003), who supports Cowgill's reconstruction, reiterates his doubts about deriving *očʻ* from **ne-$h_2$óyu-k^wid* and further suggests that *očʻ* would be the result of an inner-Armenian creation. He proposes that the interrogative-indefinite **o-* (< PIE **k^wó-* or **(H)yó-*, according to Martyrosian (2010)), as in Arm. *o-kʻ* "anyone" and Arm. *o-mn* "someone", together with *čʻ* (not), would have developed into a standard negative marker. The negative semantics would be carried by *čʻ*, although he does not say whether this is due to its connection with a negative marker and it is not clear in his explanation which phases the negative marker might have undergone so that it might have transferred its negative meaning to the pronominal stem that it is derived from **k^wi-d* (>*čʻ*). Notably, Clackson explains that the absence of the syntagm *očʻ ikʻ* "there is nothing" in the texts is due to the impossibility of the animate pronoun inserted in *očʻ* "no one" to be found next to the inanimate *ikʻ* "anything" [90]. See Table 1 for the possible developments of Armenian standard negation.

[90] This indefinite is strictly attested with negation and it would be eventually substituted by *inčʻ* as an inanimate polarity item.

Table 1. Possible development of Arm. *očʻ* according to Clackson (2003/4) and Martirosyan (2010)

PIE	"not (at all)"	"not"	"no one"	"not"
**ne*	**ne-k^{w}id*	*čʻ* inanimate	*o-čʻ*[91] "somebody-not" animate	*očʻ* / *čʻ* Cf. *čʻik*

At least with respect to Greek, I consider Cowgill's proto-form to be sound, although I suggest considering a few modifications to the diachronic development of the negative marker and to the role played by the indefinite stem. It is well known that labiovelars are attested in the Lineal B script (*qa*, *qe*, *qi*, *qo*; not *qu*) and that in Ancient Greek they undergo three different phonetic developments in three chronological phases (Bernabé & Luján 2006: 90). The first one is already completed by Mycenaean times: the loss of the labial appendix by contact with *u*. Myc. *jo-qi* (< **ǒ-k^{w}i*(*d*)) suggests the normal development of voiceless labiovelars. When it is in the contact with *u*, as in *qo-u-ko-ro* (< **g^{w}o-u-k^{w}o-*) [92], dissimilation takes place (Lejeune 1987:43). The other two developments are post-Mycenaean in date: into an apical stop and into a labial stop corresponding to voiced and voiceless stops respectively; these two developments are fully completed by alphabetic Greek times. Nevertheless, as I have already mentioned, there are cases where the dissimilation has not taken place, especially in Mycenaean anthroponyms. If one takes a look at the Greek dialects, there are some deviant data as well: Thessalian, Ionic, and Chypriot attest a voiceless velar instead of an apical stop for indefinite forms and Arcadian together with Chypriot and Megarian attests a sign И, which has been considered the representation of a voiceless affricate that would consist in the middle state between an apical stop and a full sibilant. Most authors consider the voiceless velar stop to be result of the dissimilation of the labiovelar after *u*: οὐ + *k^{w}* > οὐκ. See Table 2 for a summary of the deviant developmetns of the voiceless labiovelar in some Greek dialect.

[91] The addition of the pronominal *o-* before the negative particle *čʻ* resembles Middle Iranian negative indefinites, cf. MP. *kas-ēw nē* (**kas-aiva naiy*) and *ēč nē* (**aiva-cina*).
[92] Cf. García Ramón (2016: 220) and Bartonêk (2003: 139).

Table 2: Deviant developments of the voiceless labiovelar in various Ancient Greek dialects

	Mycenaean	Thessalian	Ionic	Chypriot
*PIE *k^w*	*o-u-ki-* but *o-u-qe*	κις[1] but also τις	κως, κοτε, etc but τις	*o-u-ki-te-sa-to*[1] but also *si-se*[1]

Although all these deviant developments of Thessalian, Ionic, and Chypriot have been taken as dialectal features, however, to attribute this dissimilation to contact with negation might not be certain". Therefore, I suggest that there must be some concrete phonetic contexts that might have prompted this phonetic change, probably, as already suggested by Lejeune (1987 45-6), by contact with vowel *o* (for the case of Ionic forms). As for Mycenaean, it seems that the proclitic nature of the negative marker assures the expected dissimilation. On the contrary, *o-u-qe* must have been a fairly new form in which case the dissimilation did not take place. This is also connected to the fact that *o-u-qe* does not perform its functions as a normal negative coordinator as it is attested in alphabetic Greek. Taking into consideration all of the above, then, the following developments are proposed according to the Mycenaean and Homeric data.

Table 3: The origins and development of the Greek negator

PIE	**ne*					
Proto-Greek	**ne-h₂óyu*	**ne-h₂oyu- k^wí-h₁*				
Mycenaean Greek	*o-u-*	*o-u-ki-*		*o-u-qe*		
Homeric Greek	οὐ	οὐκί > οὐκ	οὔ τις/ τι οὐτιδανός	οὔτε	οὐδέ	οὐδείς οὐδενόσωρος

In principle, we should have to assume twice the presence of a pronominal stem **k^wi-*, the first one in univerbation with the negative particle for the creation of a new negative marker, which is already in the stages of becoming the standard negation and secondly, in the negative indefinite οὔ τις/ τι attested in Homer. The sound changes involved also support this development: the common development of the labiovelar after *u* (k^w > *k*), which is not seen in *o-u-qe* (k^w > *q*), where the negative marker and the enclitic particle are not yet fully grammaticalized, still being considered as a compound. Therefore, *o-u-ki-* seems to be a much older form than *o-u-qe.* Seemingly, *o-u-ki-* should be considered a negative indefinite, as Varias García (2008: 777, 791) does (an

intensifying indefinite "not any"). However, Piquero (2017: 310) further suggests considering this *o-u-ki-* an adverbial formation, which, in this case, would eventually lose its proclitic nature and would become a fully functional syntactic negation. This particular development of the indefinite as a reinforcement of the negative marker could be another reason why οὔ τις never becomes an univerbation [93]. It would also explain the consequent creation of another indefinite series for filling up the gap left by NEG-$k^{w}i$ [94].

However, now I would like to offer a different view of the reconstructed negative marker of Greek that departs a little bit from Cowgill's proposal. As I will show in section 1.5.4, morphosyntactic features such as polarity sensitivity embedded within a given word can prompt negative attraction. This is the case for several Greek, Italic, and Indo-Iranian [95] indefinites that are conjoined with old instrumental suffixes that help in attracting negation until negative absorption takes place. Therefore, I suggest a slight modification to the reconstructed negator: **ne-h₂oyu-k^{w}í-h₁*. With this form, I assume several things. First, that the reinforcement of negation for the sake of emphasis indeed takes place, but not by the use of the neuter accusative singular *-$k^{w}id$, but by the instrumental singular -k^{w}*í-h₁*. **h₂é/óyu-* "life" (> cf. Ved. *áyu-* / OAv. *āiiū-*/ Gr. αἰών / Goth. *aiws*) becomes an adnominal reinforcement that, through a process of grammaticalization, loses its own autonomy and accent, eventually fusing itself with the negative marker. There is a first stage where the form **ne-h₂óyu* "not in one's life= never" is not yet reinforced by the interrogative stem $k^{w}i$-. This is sustained by the forms Lat. *haud* (< Proto-Italic *né-χe-áyud*< **ne-k^{w}e-h₂éyu-d*) "not at all" (cf. Garnier 2014) and by Goth. *ni aiw* [96] "never" (<*pre-Proto-Germ. **ne aywom* < **ne-h₂éyu*) (cf. Hackstein 2016-7: 2019-21) and Hitt. *nāwi* "not yet" < **nó-h₁-h₂yéwi-* "not in life" (cf. Puhvel 2007:78). In the meantime, elision of the negative marker and transfer of the negative nuance into the adnominal phasal adverb takes place, similarly to Lat. *haud*. Notice that in Germanic and Hittite, negation is preserved.

[93] Univerbation is the syntagmatic condensation of a sequence of words that recurs in discourse into one word.

[94] Here I will restrict myself to the Greek material. In chapters 3 and 4 I will deal in more detail with similar negative indefinites found in other IE languages.

[95] Cf. Dunkel (2014ii: 464) who suggests the connection of the Indo-Iranian negative indefinites with the use of an instrumental ending.

[96] *aiw* is always with negation conveying the meaning of Gr. οὐδέποτε "never". Also consider West Germanic > Germ. *nie*.

In Greek, this phasal adverb is reinforced by the interrogative stem with an instrumental suffix -$k^{w}i$-h_1> -$k\bar{\imath}$, similarly to the instrumental -*d* in Lat. *haud*, a fossilized instrument of extension or duration in time (Garnier 2014: 99) [97]. According to Garnier, the instrumental suffixes -h_1 and -*t* are allomorphs due to the so-called Kortlandt effect: *-*d* # V > *-h_1 # C (Also cf. Beekes 2011:188) [98]. Accent shift takes place due to the instrumental suffix, as seen in Homeric οὐκί (-$k^{w}i$-h_1> -$k\bar{\imath}$) as well as in de-instrumental adverbs such as ἀμαχητί (*-*ti*-h_1 > *tī*) from ἀμάχητος "not to be fought with, unconquerable [99]. Cf. Pontic Greek *'kí* from οὐκί.

Further evidence of the instrumental nature of the pronominal stem $k^{w}i$- employed in the creation of a new negative marker comes from the adjective οὐτιδανός, ή, όν "worthless". As has been suggested by Widmer (2005:197) -ιδ- [100] formations represent de-instrumental nominals [101], such as πατρίς, πατρίδος "of one's father" (cf. Meier-Brügger 1975), which is derived from πᾰτήρ through morphological hypostasis in predicative constructions (X $\text{verb}_{\text{cop.}}$ with $\text{Y}_{\text{instrum.}}$): "with a father" > "being with a father" > "fatherland". Other adjectives such as ἠπεδανός "weakly", ῥιγεδανός "chilling", πευκεδανός (πευκήεις) "sharp" might as well reflect de-instrumentals [102]. Thus, there are two possibilities for the reconstructed pronominal stem *$k^{w}i$ in οὐτιδανός: a) a formation derived from an instrumental -ιδ- (*-*i*-*t*) with some further extension -αν-ός or b) through the nominal instrumental -*i*-h_1 (> -*ī*). In either of the two cases, accent shift takes place (movement to the final ending). Therefore, the following diachronic pattern must be assumed: οὔτι "nothing" > οὐτῑ́/-ιδ- "with nothing" > οὐτιδανός "worthless". Ved. *nákī-m* /Av. *naēcī-m* that display an instrumental -h_1 recharacterized with an instrumental -*m* (Dunkel 1997; 2014ii: 470) would further support the assumption of the instrumental nature [103] of the interrogative-indefinite stem along with the negative marker. Cf. chapter 3, section 3.2.2.2.6.

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[97] Also cf. Dunkel (2014ii: 353) for the instrumental view of *haud*. Cf. Melchert & Oettinger (2009:59), who propose *-oh_1-*t* > Lat. -*ōd* /Hitt. -(*i*)*t*. Also consider OIran. *-*aH* (instr.) >> OAv. -*āṯ* (abl.).

[98] I believe that it is also possible the idea of recharacterization of an nominal instrumental: -h_1-*t* as it is the case of Hittite, according to Melchert & Oettinger (2009).

[99] Cf. Widmer (2005:198).

[100] For the implications of -*t* (instr.) and -*d* (acc.), Cf. Dunkel (2014ii: 185 fn 6).

[101] He explains the creation of new nominal formations based on instrumental suffixes as a case of morphological hypostasis.

[102] About the obscurity of this nominal suffix -δανός, see Chantraine (1968), Beekes (2010).

[103] Also notice Lat. *qui*? "how?", an interrogative of manner. Also Osc. *neipī*- > *neip* "not". See section 4.5 in chapter 4 for a review of all forms where this pattern is assumed.

Moreover, indirect evidence in support of the instrumental nature of οὐτιδανός and, indirectly, of οὐκί comes from the nominal Lat. *nēquitia* "worthlessness, malice", where, according to my view, the negative marker is also further extended by an instrumental suffix. According to the general opinion, IE proterodynamic *-ih₁*-stems develop into a *devḯ*-type inflection (Schrijver 1991:383), which has turned into Lat. *-iēs* (5th declension) from oblique cases and after the model of Latin nouns such as Lat. *spēs*. Sometimes, *-ia*/*-iēs* forms (e.g. *munditia*, *munditiēs* "cleanliness") can co-occur (Leumann et al. 1977:291ff), although they are functionally and semantically equivalent (Monteil 2003: 239). However, *-iē* forms are chiefly confined to the nominative and accusative. As suggested by Weiss (2009:323), this may point to the fact that those grammatical cases might have been crucial in the formation of the paradigm. In turn, this fact formally connects *-iē* forms with the *vr̥kḯ*-type inflection with a full grade in the suffix *-íh₁* > *-ieh₁*, which would have been generalized from the accusative singular. Cf. *devḯ* type: nom. *-ih₁* > *-ī*, acc. *-ih₁-m*, gen. *-ieh₁-s*. Also, Latin suffixes *-itiēs /-itia* are used in the creation of de-adjectival abstract nouns [104]: *laetus* "happy" > *laetitia* "happiness", *dūrus* "hard" > *dūritia* "hardness". There is also a neuter variant *-itium*: e.g. *servus* "servant" > *servitium* "slavery", *comes* "companion" > *comitium* "a place of assembly". Cf. Leumann et al. (1977:296). According to Weiss (2009: 301), if the stem of the adjective was monosyllabic, then an extended form of the suffix *-it-ia* was used, instead of suffix *-ia*, present in polysyllabic nominals, as in *audāx* > *audacia*. Cf. Also Fortson (2017: 843). However, there are non-monosyllabic nominals that take *-itia* such as *amīcus* "friendly" > *amīcitia* "friendship". Although Leumann et al. (1977:500) asserts that *nēquitia*, *nēquiter* as well as other formations such as the superlative *nēquissimus* and the comparative *nēquior* are derived from *nēquam* "worthless", I believe that only the latter group is directly connected to *nēquam*. To the contrary, what we see in *nequitia* is the use of an instrumental suffix *-it-* plus a suffix *-ia* for the creation of de-adjectival abstract nouns. Following Widmer (2005), I suggest that there might have been a morphological hypostasis in the creation of this new type of abstract nouns: ***nēqu-*** "worthless" [105] > *nēqu-it-* "with (something) worthless" > *nequit-ia* "(moral) worthlessness, malice". This instrumental dental stop would be also present in

[104] There is a gradual disuse of *-itiēs* forms in favour of *-itia*.

[105] Probably, both forms are derived from an unattested adjective *nequi-* (cf. οὐτιδανός), not from *nēquam*, which, according to Dunkel (2014ii: 458), is an undeclinable de-instrumental adjective (< *k^{w}éh₂-m*, *k^{w}ắm*). Also cf. *k^{w}eh₂-h₁* > Lat. *quā* "how?", *quam* "as, how", (*quis*)*quam* "anyone".

Lat. *haud*, where the voiceless stop has evolved into a voiced stop in final word position (Monteil 2003:76). As in the case of οὐτιδανός, *-*it*- in *nēquitia* can represent the following constructions: a) recharacterization of a former instrumental suffix *-*ih*$_1$-*t*, b) a bare suffix *-*t* along with the pronominal stem *k^w*i*- or, lastly, c) an instrumental suffix *-*it*. Comparative data seem to incline the balance towards c), as we can see in Table 4:

Table 4: instrumental suffix -*it*- in some IE languages

IE *-*it*-	
Greek	Gr. χάριτ- "with charm" < χάρι- "attractiveness" Gr. τυραννίς, τυραννίδος "absolute sovereignty" < τύραννος "absolute ruler" Gr. πατρίς πατρίδος "fatherland" < πατήρ "father" Gr. οὐτιδανός "worthless" < οὔτι "nothing"
Avestan	Av. *huzāmit*- "well-born" < *huzāmi*- "good birth" Av. *dāit-iia*- "legal" < *dā*- "to give", *dāta* "law"
Vedic	Ved. *rohít*- "red (adj.)" < **rohi*- "red colour" Ved. *harít*- "yellow (adj.)" < **hári*- "yellow colour" Ved. *dakṣinít* "right (adv.)" < *dakṣina*- "right (adj.)" Ved. *cikitvít* "with deliberation (adv.)" <*cikitu*- "understanding (adj.)"
Latin	Lat. *laetitia* "happiness" < *laetus* "happy" Lat. *amicitia* "friendship" < *amicus* "friendly" Lat. *servitium* "slavery" < *servus* "servant" Lat. *nēquiter* " worthlessly, badly" < **nēqui*- "nothing" Lat. *celeriter* "quickly" < *celer* "quick" Lat. *aequiter* "fairly" < *aequus* "fair; plain"

Furthermore, the common opinion is that -*iter* adverbial formations come from a) the contrastive suffix *-*teros*, or from b) an extension of the adverbial suffix -*ter* observed in adv./prep. *inter*, *praeter* (Leumann et al. 1977: 499-502; Baldi 1999:350; Weiss 2009:62; Vine 2017:766). I assume that the same instrumental suffix -*it*- found in *nēquitia* is also found in the adverb of manner *nēquiter* and in similar formations. In turn, it is possible to derive the suffix -*er* from either *-*teros* or *-*ter* suffixes (cf. Dunkel 2014i: 180-1). Notably, Osc. *akrid* (= Lat. *ācriter*) might point to an original instrumental -*it* suffix employed for the creation of adverbs of manner (cf. Untermann 2000: 77).

Other Latin formations that might be derived from instrumental suffixes are -*tim* adverbs. These adverbs of manner are said to come from the accusative singular of *i*-stems (Weiss 2009: 362): e.g. *partim*, *raptim*, *nominātim*, *cūriātim*, *verbātim*, etc. Dunkel (1997:77) already suggests an instrumental derivation for adverbs such as *olim*, *interim*, *utrimque*, etc, all of them with an instrumental -*m* that would have parallel

examples in Gr. πρίν and πάλιν. He also suggests that there might be an alternation and mutual correspondence between instrumental endings such as *-*ti-m* and *-*ti-h*$_1$. Widmer (2005:195), in turn, asserts the instrumental nature of Greek adverbs such as ἀμαχητί "without battle", ἀγελαστί "without laughter", ἀδακρυτί "without tears", ἀμογητί "without toil", ἀνδριστί "like a man (adv.)" [106], ἐγερτί "eagerly", Αἰγυπτιστί "in the Egyptian tongue", νεωστί "lately, just now", etc., all of them portraying an adverbial use of *-*tí-h*$_1$ similarly to Latin *-*ti-m* (cf. Dunkel 2014i: 186-7) [107]. Thus, following Dunkel (2014i: 189), I suggest that -*tim* formations are, in fact, of instrumental origin and that are consistently used as adverbs of manner. Contrary to Dunkel, I do not believe in the necessity of reconstructing *-*ti-h*$_1$*-m*, with an instrumental -*m* suffix as recharacterization of an instrumental -*h*$_1$. Thus, I consider *-*ti-m* to be the real instrumental suffix behind these Latin adverbs in -*tim*. Notice that out of the five main types of adverbial formations in Latin: -*ē* (Lat. *rectē*), -*iter* (Lat. *celeriter*), -*tim* (Lat. *paulatim*), -*tus* (Lat. *funditus*), -*um* (Lat. *paulum*) /*e* (Lat. *facile*), the first three are de-instrumentals, the fourth is ablatival, and the last one is derived from the nom.acc sg. neuter. Most importantly, this type of de-instrumental adverbs show a alternation that could also be observed in the use of instrumental suffixes along with the indefinite-interrogative stem: *-*ti-m* : *-*ti-h*$_1$ ≈ *-*k*^{w}*i-t* : *-*k*^{w}*i-h*$_1$.

If we go back to the reconstruction of the early Greek standard negative marker, I believe there is enough evidence in favor of the reconstruction of an instrumental suffix along with the pronominal stem added as an emphatic extension to the original negative marker: *-*k*^{w}*i-h*$_1$ or *-*k*^{w}*i-t*. Through different stages and variants, this phenomenon could be also observed in Armenian. Clackson's explanation of the possible development of the Armenian negator also fits with my proposal. In Table 5, I provide the chronological development of negation in Greek and Armenian according to my view.

Table 5: NEG- *k*^{w}*í -h*$_1$*/t*

PIE **ne*	proto-forms			aftermath forms
Greek	**ne-h*$_2$*oyu-k*^{w}*í- h*$_1$*/t*	*o-u-ki-*	οὐκί	οὐ(κ) $_{SN}$
Armenian	**ne-k*^{w}*í-h*$_1$*/t*	**č'*	*o-č'*	*oč'* / *č* $_{SN}$

[106] Notice that most adverbs with the instrumental suffix *-*ti-h*$_1$ go along with the morphological negation ἀ- < PIE * *n̥*-.
[107] Such a suffix would also be present in nominals such as Lat. *nātiō* < *nātion-* < **na-ti-h*$_1$- < *nātus* (cf. Widmer 2005).

2.1.2. Negation in Homeric Greek: sentential negation, position and modality

In this section I will deal with the various negative formations attested in Homer, especially focusing in their behaviour regarding their use of modality and their position in respect to the verbal form.

First, there is the alpha privative [108] ἀ- in both verbal and adjectival forms such as ἀτιμάω "to dishonour, disdain" (τιμάω "to value, honour") and ἀνείμων, ον "without clothing" (εἶμα "garment"). Without any doubt, this type of morphological negation is the only remnant of the PIE negative marker *$*n̥$* in Ancient Greek.

Homeric Greek SN is οὐ and has a few sandhi forms: οὐκ which consists in adding a voiceless velar before any vocalic sound and οὐχ before an aspirated vowel. I already mentioned the two forms related to standard negation: οὐχί and οὐκί. The former is formed by οὐ and the particle *$*-ǵʰi$* that works as a negative intensifier. The latter has already been explained as a remainder of the reinforced negative marker that eventually became the standard negation. Among other non-standard negative forms, there is οὐδέν, which in some cases conveys an adverbial use and sometimes can even be considered a fully functional sentential negator. I will discuss further its origins in the section about (negative) indefinites.

It seems that in Homeric Greek there are several traces of the different phases of the cyclic renewal of the negative marker. As seen in Table 3, there are some rare forms attested: οὐκί is an archaic negative marker. This form would represent the middle stage between the phasal adverb *$*ne-h₂óyu-$* and SN οὐκ and would correspond to the indefinite determiner Myc. *o-u-ki-*, although as a fully independent syntactical negative. Then, the adjective οὐτιδανός, ή, όν "worthless", whose etymology I already explained in the last section is attested up to six times in Homer.

(6)
Il. 1, 231
δημοβόρος βασιλεύς, ἐπεὶ **οὐτι**δανοῖσιν ἀνάσσεις·
"People-devouring king, since you rule over nobodies!"

Notice that the negative οὐτι-, just like οὐδενόσ- in οὐδενόσωρος, as in (7), behaves as a morphological constituent negation in univerbation with adjectives, similar to alpha privative formations. οὔ τις / οὔ τι represent secondary reflexes of negation

[108] Also called *special negation* by Moorehouse (1959:2).

plus the pronominal *$k^{w}i$- [109], already attested in Myc. *o-u-ki-* and Hom. οὐκί with dissimilation of the labiovelar into a voiceless velar stop by contact with *u*. Moreover, I will show in the following sections that the neuter singular form οὔ τι possess two possible functions: the first one as a negative quantifier, "nothing", and the second as an emphasizing particle "at all" (cf. OP. *-či*, Av. *-čiṯ*, Ved. *-cid*) after non-veridical operators such as negation, interrogatives, and conditionals. Eventually the system resorts to the scalar negative marker οὐδέ and the numeral 'one' εἷς for the creation of a new negative indefinite [110].

(7)
Il. 8, 178
νήπιοι, οἳ ἄρα δὴ τάδε τείχεα μηχανόωντο / ἀβλήχρ' **οὐδενόσ**ωρα·
"The fools, who in fact contrived these walls, weak and of no account"

In relation to the placement of the negative particle, both morphological (in Mycenaean) and syntactic (in Homeric Greek) negation are preverbal. This is corroborated by the studies of Moorhouse (1959) and Bertrand (2010). In Table 6, I provide the data taken from the latter about the exact position of the clausal negative marker in Homer. It seems that the only element that can block the clausal initial position of negation is an adverb topicalized to the front of a sentence working as an extra-clausal element. Moreover, there are a few examples where the verb is topicalized and negation is set postverbally, but these examples are very rare. Bertrant (2010: 434) suggests that the scope of negation varies depending on whether the position of the negator is initial or immediately preverbal.

[109] We will see that these formations are not grammaticalized, as can be concluded from the tmesis configuration. It seems that the system does not allow the indefinite pronoun from the same stem to be conjoined with a negative marker already univerbated with the same pronominal form. Cf. Arm. *oč' ik'* discussed above.

[110] It will be discussed in detail in the Negative Indefinites section how the nature of the scalar negative marker, already occurring in pseudo negative concord structures, will be the perfect component for a new negative indefinite series, οὐδείς, that would be a key element for the development of proper negative concord structures in Classical Greek.

Table 6: The position of negation in Homer (after Bertrant 2010:430)

The position of the negative marker in relation with the verb.	Initial	Non-initial	Total
Immediately before	416	175	591
Separated from the verb	557	49	606
Total	973	224	1197

Therefore, Ancient Greek is among the languages following the NegFirst principle. This will be the pattern in most IE languages. Nonewithstanding, there are instances where negation is post-verbal, but they seem to be randomly used, especially in fixed phraseology, as in (8). This is the case where the form οὐκί is attested, up to 10 times in Homeric Greek.

(8)
Il. 2, 238
ὄφρα ἴδηται / ἤ ῥά τί οἱ χὴμεῖς προσαμύνομεν, ἦε καὶ **οὐκί**·
"so that he may learn whether we, too, aid him in any way or not"

Constituent negation is also present in the texts, as in (9a-b), although Homeric Greek clearly favours sentential negation. In the same way, negation seems to be symmetric in all cases, this is, the verbal form does not undertake any morphological changes in order to express a negative proposition. This is also a trait that would be patent to all early IE languages attested.

(9)
a.Od. III, 27-28
***οὐ** γὰρ ὀΐω / **οὔ** σε θεῶν ἀέκητι γενέσθαι τε τραφέμεν τε.
"For I think you were born and raised not against (the will of) the gods (Loeb: For I do not think you were born and reared without the favour of the gods)"

b. Il. IV, 300
ὄφρα καὶ **οὐκ** ἐθέλων τις ἀναγκαίηι πολεμίζοι.
"So that, even not willing, any man would fight out of necessity (my own translation)"

In (9a) the presence of a double negative reading is not considered in our translation. I follow Bentley who corrects this passage with ἦ γὰρ, thus cancelling the double negation reading. In addition to οὔ … ἀέκητι "not against" being certainly a case of constituent negation, there is one further argument that supports this reading: the impossibility of negative raising, in which case the negator would have risen to the

matrix clause. All cases with negative raising with verbs of "thinking" in Homer place the negative particle in preverbal position. In (9b) the indefinite is a free-choice present in a non-veridical contexts (final clause), which does not allow the indefinite to be within a negative context. Thus, the negative marker only has scope over the participle and not over the verb or the entire proposition.

The scope and focus of negation behave very much like any other IE language. Most cases present a preverbal negation (cf. *infra* about word order) and there are also instances where the focus of negation is marked over other forms different from the verb, especially over indefinites such as τις. In the latter case, negation (followed by an indefinite) can either operate immediately before the verb or can function in tmesis, in which case it is usually because its scope goes beyond the verbal form and covers the entire proposition. In either case, I consider negation to be sentential. Therefore, it is clear that in several cases negation scopes beyond the verbal form and interacts with other grammatical categories such as indefinites, pronouns and adverbs. As we will see in the section dealing with indefinites, it is possible to deliver multiple indefinites within the scope of one single negation–i.e. multiple licensing.

Finally, I would like to say a few words about the use of moods within negation. Willmott (2007) treats mood and modality in Homeric Greek. In the case of negation, it seems quite obvious that the use of a certain mood utterly depends on the semantic context in which a given negator is operating. Therefore, following Willmott, I believe that we should avoid the coinage of *modal* applied to the prohibitive particle, since Homeric texts show that both particles, οὐ and μή, in many cases operate in similar ways regarding the use of a certain mood. In general, it has always been assumed that a certain verb might be in the wrong mood if we take into consideration that the data available points to a certain, more-averaged use of the indicative, subjective or optative along with a particular negator. Willmott affirms that this claim is wrong, especially in the belief that indicative is more neutral or less of a mood compared to subjective and optative taken as *irrealis*. In Table 7, I reproduce Willmott's (2007, 2013) distribution of negative markers according to the mood choice [111]. In the same line, Chatzopoulou (2019) seemingly argues that the negative marker choice in all stages of the Greek language does not depend on the mood, but on whether we are dealing with a veridical or a non-veridical semantic context. μή would only be allowed to appear in non-

[111] Also cf. Crespo *et al*. (2003: 223) and Willmott 2007: (204-210).

veridical contexts, whereas οὐ can occur in both. Chatzopoulou (2019: 45-49) extends this analysis to other early attested IE languages. It seems that this division between standard negation and the prohibitive marker pans out and that *meh_1 can only be licensed by non-veridical contexts such as negation, conditionals or interrogatives.

Table 7: Moods and negators in Homeric Greek (after Willmott 2013: 327)

Mood	Construction	Negator
Imp/subj	Directives	*mē*
Opt	Wishes	*mē*
Opt/subj/indic	Most Conditional antecedents	*mē*
Opt/subj/indic	Purpose clauses	*mē*
Opt/indic	Conditional consequents	*ou*
Opt	Statements of obligation	*ou*
Opt	Statement of ability	*ou*
Indic/subj	Assertions	*ou*

In the same line, Van Emde Boas *et al.* (2019: 537) observe this parallel pattern between negator and mood selection in temporal clauses. They reach to the conclusion that for temporal sentences referring to the future or a repeated/habitual actions, the mood selected is subjunctive or optative (if the temporal clause refers to the past) and the negative marker is μή. On the contrary, for clause referring to the past, the system resorts to the indicative and the negator οὐ.

2.2 Negation, polarity, and indefinites in Homer

In this study, I will show to what extent polarity and the role it plays within the indefinite system are fundamental in the study of negation. Crosslinguistically, it seems that indefinites in their different forms, i.e. pronouns, adverbs, and determiners, have a special connection with polarity. I will seeminly argue in this section that Homeric Greek is no exception in this regard. The use of indefinites in both the *Iliad* and the *Odyssey* is very prolific and, interestingly, most occurrences of indefinites are found within non-veridical contexts (including negation), to the exclusion of positive (veridical) environments. This means that not only negation as an anti-veridical operator elicits indefinites as polarity items, but also other non-veridical contexts that entail weaker polarity conditions such as conditionals and interrogatives. Enclitic/unaccented indefinites pronouns such as τις/ τι and indefinite adverbs such as πως, πῃ, που, ποθί,

ποθέν, πω[112], and ποτε display a syntactic distribution, which is fundamentally in connection with polarity and the different semantic contexts that elicit them to be present in a given sentence. As I have discussed in the introduction, polarity and semantic contexts must be understood as the distribution of α element being limited by sensitivity to some semantic property β of the context of appearance. So, I will show that seemingly these indefinites, under the guise of one form, function differently according to the contexts in which they find themselves embedded[113]: I refer here to their function as non-affective items, negative/affective polarity items, free-choice items, and positive polarity items.

In Table 8, I present a complete list of all indefinites attested in Homeric Greek. I provide indefinites divided into five different ontological categories. Horrocks (2014) already considers the indefinite pronouns τις/ τι as polarity elements, although he does not go into much detail about the real nature of these pronouns, how they behave, or in which contexts they are found in Homeric Greek [114]. Here I intent to provide a full description of all these indefinites, especially their interaction with negation, which is one of several contexts that activate polarity in a given language. In the first six books of the Iliad and the first six books of the Odyssey, I estimate that more than 70% of the indefinites are present in polarity contexts. Homeric Greek made no formal distinction between "someone" and "anyone", using the enclitic pronoun τις for both indefinite functions (Horrocks 2014: 45). I will show that the fact that there are no morphological traits to distinguish such forms does not entail that syntactical and semantic features are not invested in the distribution of these indefinites. Actually, there is an overlap of functions carried out by one single form. Homeric Greek represents a period of the language where "no X" formations such as οὐδείς are beginning to be used. According to Horrocks (2014: 47), languages typically lack items meaning "no X" when those meaning "any X" may appear both before and after the negative that licenses them as in MG[115].

[112] More accurately, it should be considered an indefinite stem form with adverbial semantics.
[113] A case in point is Swedish which only has three indefinite series, one of which, *någon*, can carry out all functions with the exception of free-choice (Haspelmath 1997:249).
[114] To be fair, Horrock's work is focused in Classical Greek onwards.
[115] Certain aspects of coincidence between Ancient Greek and Modern Greek such as the lack of "no X" words proves the cyclic nature of polarity.

Therefore, in this section I will assess the nature of indefinite pronouns and adverbs in Homer as polarity elements in view of their appearance in different sematic contexts.

Table 8: Indefinites in Homeric Greek

Ontological Categories				
Person	τις "someone; anyone"	οὐδείς "no one"	ποτέρος "either of the two"	
Thing	τι "something; anything"	οὐδέν "nothing"		
Place	που "somewhere"	πῃ "some/anywhere"	ποθί "some/anywhere"	ποθέν " from some/ anywhere"
Manner	πως "in some/any way"			
Time	ποτε "some/any time"	πω "yet"		

2.2.1 Specific indefinites:

According to the traditional definition, the indefinite pronoun τις, unaccented and enclitic by nature [116] – along with the interrogative τίς with which is formally relate– designates an undetermined entity (Crespo et al. 2003: 55), taking Wackernagel's position in contrast with the interrogative form, which is accented and can take the first position in a sentence [117], as in (10).

(10)

Il. 5, 373
"**τίς** νύ σε τοιάδ' ἔρεξε, φίλον τέκος, Οὐρανιώνων /μαψιδίως, ὡς εἴ τι κακὸν ῥέζουσαν ἐνωπῆι;"[118]
"Now who of the sons of heaven, dear child, has done such things to you whantonly, as though you were working some evil in the sight of all?"

The indefinite pronoun in Greek derives from PIE *k^wi-/k^wei- and among its cognates are Lat. *quis* and Hitt. *kuiš* and it is already attested in Mycenaean, cf. *jo-qi* (>

[116] According to Horrocks (2014: 55), in Medieval Greek τις may routinely appear clause-initially and/or be emphatically stressed, which indicates that it has lost its clitic status and has taken on the role of an indefinite quantifier.
[117] This way of differentiating interrogatives and indefinites can be seen in other early IE languages such as Vedic.
[118] Other instances of interrogative τίς: Il. 1, 8; 150; 540; 2, 354; 3, 226; 5, 373; 633; 703; 6, 123; 145; Od. 1, 170, etc.

ὅτ(τ)ι) and *o-u-ki-*. For the ablaut distribution, dialectal forms, and other IE derivations, see Dunkel (2014ii: 452-458), Rix (1976: 186-88), and Chantraine (1953: 1121). This indefinite pronoun is mostly present in the nominative singular form, although there are examples of accusative, dative, and genitive singular. For the neuter singular τι[119], see below. Plural occurrences (nom. τινες, gen. τινων[120], acc. τινας, and dat. τισιν), as in (11) are very scarce (only six times in total in the two poems). Since plurality seems to be nonsensical when dealing with indefiniteness, its use is rather limited.

(11)
Od. 17, 587
οὐ γάρ πώ **τινες** ὧδε καταθνητῶν ἀνθρώπων/ ἀνέρες ὑβρίζοντες ἀτάσθαλα μηχανόωνται.
"Not yet any of the mortal men who in their insolence devise such wicked folly as these"

The accusative singular has added an ending -α (from the nominal declension) to an older form *τίν (Beekes 2010:1487). In Homer, only τινα is attested. On the contrary, for the dative and genitive, the Homeric texts present up to three forms for each case: gen. τεο, του, and τευ and dat. τινι, τεωι, and τωι. τινι and the non-attested τινος –which is the most common form in Classical Greek– are formally similar to the accusative by analogy.

2.2.1.1 specific unknonwn indefinite: τις / τι "someone, something, some"

In the following section I set out to provide examples of non-affective uses of the indefinite τις "someone". There are two types of indefinites. The first group is composed by *specific-unknown* indefinites, which are placed in left-most corner of Haspelmath's semantic map and whose distribution does not seem to be determined by polarity.

(12) Specific known (non-affective)
Il. 6, 108
φὰν δέ **τιν'** ἀθανάτων ἐξ οὐρανοῦ ἀστερόεντος / Τρωσὶν ἀλεξήσοντα κατελθέμεν·
"And they said that someone of the immortals had come down from starry heaven to assist the Trojans"

[119] This indefinite preserves the old distribution of animate/inanimate gender present in most IE languages.
[120] The older form τέων (accented) is only used for the interrogative.

Il. 5, 9
ἦν δέ **τις** ἐν Τρώεσσι Δάρης, ἀφνειὸς ἀμύμων, /ἱρεὺς Ἡφαίστοιο·
"Now there was among the Trojans a certain Dares, a rich man and incomparable, a priest of Hephaestus".

2.2.1.2. Specific known indefinite, ὅς / ὅ τε "someone who, something that"

In addition to specific-known τις, I take the relative ὅς τε (< **(H)yós-k^{w}e*) formed by the relative pronoun and a non-connective particle τε –usually translated as a normal relative– to operate in many cases as a *specific known* indefinite "something that, someone who". τις "some", on the other hand, would express a *specific unknown* indefinite[121]. It has been recently argued by Huggard (2015) that (for Anatolian) relativization constructions should be best explained as indefinite polarity items [122]. In this view, ὅς τε should be considered as positive polarity item, since it is always excluded from negation. As we will see below, ὅς τις as free-choice polarity item will behave in the same way.

Crosslinguistically, the absence of a *specific known* indefinite series in a given language is not rare, as can be seen in Russian, Icelandic, Hungarian, Polish, Irish, Korean, etc. that do not display such an indefinite. Classical Greek does not display such an indefinite either and in Homer there are only remnants of such a form. For Classical Greek, Van Emde Boas et al. (2019: 99) make a distinction between the indefinite relative ὅς τις and the definite relative ὅς. ὅς περ would represent an even stronger definite relative "exactly who, the same" [123]. As we know, at a very early stage, **k^{w}i* and **k^{w}e* are both involved in the expression of indefiniteness. First, they work as a pronominal base for indefinite formations (pronouns and adverbs) as observed in Greek and Indo-Iranian. Secondly, always behaving as enclitic elements, they convey indefiniteness as particles invested in non-veridical semantic contexts. In Table 9, I provide a list of the relatives attested in Homer and their semantic nuances. Homeric Greek makes a consistent use of relatives for carrying out functions usually exclusively attributed to the indefinite τις.

[121] Cf. Monro (1891: 235); Schwyzer (1950:575), and Crespo *et al*. (2003: 379).
[122] In fact, Huggard (2015) suggests indefinites can function as relatives. This proposal is not sustained in other IE languages, but allegedly only in Hittite. However, Luján (2009) has suggested that relatives and indefinites might derive from the interrogative base **k^{w}i-/k^{w}o-* that through different stages of grammaticalization might have developed relative and indefinite functions.
[123] Cf. Smyth (1920:561), Schwyzer (1950: 615).

Table 9: Relatives in Homeric Greek

definite relatives	indefinite relative, *specific known* (vs τις, unknown)	indefinite (free choice item)
ὅς, ὅς περ	ὅς/ὅ τε	ὅς τις/τι
"who", "exactly who"	"someone who" "something that"	"anyone who, whoever" "anything which, whatever"

ὅς τε relates to the relative indefinite ὅς τις, although both clearly have distinct functions within the indefinite frame. ὅς τε should be taken as an *specific* indefinite. On the contrary, *non-specific* indefinites are usually within non-veridical contexts, especially above the scope of negation. However, negatives sometimes allow *specific* indefinite phrases under its scope: e.g. *Barney didn't see something*. According to Givón (1978), a *specific* indefinite pronoun in a negative sentence is a rare phenomenon, but it is not at all impossible. As we will see for ὅς τις, ὅς τε also seems to avoid negative contexts, but for different reasons [124]. Nevertheless, there are few cases where a negative marker is present in the relative clause headed by ὅς τε [125]: it only happens 12 times out of the 356 occurrences of ὅς τε in the entire Homeric corpus. Of the 12 exceptions, I count six cases of constituent negation: οὐδέν (Il. 1, 244; Il. 1, 412; Il. 16, 274), οὐκέτι (Il. 17, 623; Od. 8, 299; Od. 20, 333), three cases where we observe adherescent negation [126]: οὐκ ἐθέλουσι (Od. 14, 90. Cf. Chantraine 1953: 330), οὐκ ἐθέλειν (Il. 15, 72), and οὐκ εἰῶσι (Il. 11, 550; cf. Smyth 1920: 610), and two cases with a modal verb –which happens to be a negative polarity item, οὐ δυνάσθαι (Od. 21, 254; Il. 16, 503) [127]. The last exception would be Il. 5, 403, where some manuscripts give ὅς as the correct reading [128]. Therefore, ὅς τε operates as a PPI, as can be observed in its avoidance of negation.

[124] It should be noted that in Homer negation within relative clauses is not that common.

[125] Here I consider all books of the Iliad and the Odyssey.

[126] According to Moorehouse (1959:122), this phenomenon entails a *syntactic transference*. We have already discussed (section 1.4.1.5) this issue under the label of NegRaising. Cf. Schwyzer (1950: 593) and Muchnova (2014:484-491).

[127] Usually, when it has the meaning "to be powerful", it goes without a verbal argument (i.e. an infinitive) and does not go with negation. However, most cases of δυνάσθαι are attested in negative contexts. Crosslinguistically, it is very common to find this affinity between this type of modal verb and negation. In Latin, the same phenomenon can be observed in *nequeō* "to be unable", probably derived from **ne-h*$_1$*-k*^{w}*i-h*$_1$- > Lat. *nēquīquam* "in vain" (cf. Umb. *nepitu* < **ne-k*^{w}*i-h*$_1$*-to*). Notice that its 'positive' counterpart Lat. *queō* "to be able" also goes –most of the time– along with negation. Unfortunately, I will not discuss this issue any further and I leave it for future research.

[128] Nevertheless, West is inclined to admit ὅ τ' as the correct reading.

Thus, contra Dunkel (2014ii: 443) who considers this relative pronoun another instance of a free-choice indefinite similar to ὅς τις, I believe ὅς τε should be considered a *specific known* relative indefinite. Indefinite formations, which are always in need of a discourse referent, turn, in this case, to the relative pronoun to display a marked connection with the antecedent which is the actual referent present in the matrix clause. If we go example by example, most cases of ὅς τε appear next to a clear antecedent about which this type of relative clause provides some more information, which seems to be of an appositive nature, as we can see in (13 a-b). ὅς τε functions as if it was a referential indefinite getting its value exclusively from the context of utterance. Liddel & Scott consider the function of τε in ὅς τε as *otiose*, assuming that these relatives accompanied by the enclitic particle should be translated as normal indefinites. On the contrary, Ruigjh (1971: 359; 383) takes into account the semantic nuance introduced by τε and suggests that ὅς τε marks "faits permanents inactualisables", which would be contrary to the non-episodic nature of free-choice, as we will see. In the same line, Monro (1891:235) already defines ὅς τε as introducing general and permanent elements. In turn, Minard (1937) makes the distinction between "liaison contingente" and "liaison stable" among the functions performed by this relative. Chantraine (1953:239) seems to agree with this idea in his explanation of the semantics of ὅς τε. To the contrary, Denniston (1938) does not support Minard's division and rather suggests that the original meaning of this form might have been a generalizing force, as also suggested by Dunkel (2014). Denniston (1934:521) explains this relative as another case of epic τε where the particle adds to the relative pronoun some residuals of its habitual/generalizing nuance. Finally, García Ramón (2017:668) asserts that this relative is mainly used in similes and general statements, as has been described for epic τε by many scholars. Thus, there are certain difficulties in ascribing such a value to the semantics of ὅς τε, somehow making it closer to a free-choice meaning, a point of view allegedly admitted by some scholars such as Denniston and Dunkel. I believe ὅς τε should be rather considered an indefinite formation that provides specific information about an antecedent found in the matrix clause. Crespo *et al* (2003:379) and Luján (2014: 225) acknowledge the real nature of this relative and it is especially relevant that both assert that one of the main features of this type of relative is to signal non-restrictive relative clauses, also named appositive clauses, whose definite antecedent is

is dealt with in the clause [129]. According to our interpretation, ὅς τε refers to an antecedent, which is well known by the speaker: "something that, someone who", but whose indefinite value provided by τε refers to the habitual nuance of the action or state described in the relative clause. I take ὅς τε to fulfill the function of a *specific known* indefinite, which in later stages of Greek would eventually be extended to τις. Finnaly, among other functions carried out by ὅς τε, similarly to ὅς τις, it is the introduction of indirect questions alongside verbs of *knowing* as in (14).

(13)
a. Od. 5, 52
σεύατ' ἔπειτ' ἐπὶ κῦμα λάρῳ ὄρνιθι ἐοικώς, /**ὅς τε** κατὰ δεινοὺς κόλπους ἁλὸς ἀτρυγέτοιο / ἰχθῦς ἀγρώσσων πυκινὰ πτερὰ δεύεται ἅλμῃ
"Then, it sped over the waves like a bird, the cormorant (seagull), somone who, in search for fish over the frightening gulfs of the unresting sea, wets its thick plumage in the salt water".

b.Il. 5, 5
ἀστέρ' ὀπωρινῶι ἐναλίγκιον, **ὅς τε** μάλιστα / λαμπρὸν παμφαίνησι λελουμένος Ὠκεανοῖο.
"(like) the star of harvest-time, something that shines brightest (when) bathing in Ocean".

(14)
Il. 12, 269.
"ὦ φίλοι, Ἀργείων **ὅς τ'** ἔξοχος **ὅς τε** μεσήεις **ὅς τε** χερειότερος,…· καὶ δ' αὐτοὶ τόδε που γινώσκετε.
"Friends, who is preeminent among the Argives, who holds a middle place, or who is lesser, … and this, I imagine, you know yourselves".

2.2.1.3 Numeral one: εἷς

It is crosslinguistically common to find the numeral 'one' functioning as a source for the creation of indefinites (Haspelmath 1997: 29; 183-4; Luján 1995:215-30). The case of OP *aiva* is paradigmatic, since it is already used by Old Iranian as a fully-fledged indefinite. Cf. MP *ēc* [130]. Gr. εἷς, μία (< **sem*-, **sm-ih*$_2$) in Homer has a number of interpretations, depending on the context: "one" and "single" are the more evident meanings. In addition, there are clear examples where it conveys the semantics of a *specific* known indefinite "a certain, some" [131] –similar to Lat. *quidam*, as the head of a

[129] We will see below that this is the very difference between ὅς τε and ὅς τις.
[130] Curiously, Homeric Greek shows οἶος "alone", which is actually a cognate of OP *aiva* and derives from *(*H*)*oi̯-u̯o*. It is attested alongside εἷς a few times: οἶος εἷς. Cf. Go. *ains*, Lat. *ūnus* "one" < *(*H*)*oi̯-no*.
[131] In Classical Greek, this value is even clearer. Cf. Horrocks (2014: 21).

genitive noun phrase or as the subject of a third person imperative, as in (15a-b). There are 99 occurrences of εἷς in both the Iliad and the Odyssey. Out of the 27 occurrences present in Il. 1-6 and Od.1-6, there at least 7 clear examples of a *specific known* εἷς. See section 2.3 for the involvement of εἷς alongside the scalar focus particle οὐδέ in the creation of a new negative indefinite series.

(15)
a.Il. 5, 603
τῶι δ' αἰεὶ πάρ' **ἔεις** γε θεῶν, ὃς λοιγὸν ἀμύνει.
"For him there is always some god, who wards off destruction (from)".

b.Od. 3, 423
εἷς δ' ἐπὶ Τηλεμάχου μεγαθύμου νῆα μέλαιναν πάντας ἰὼν ἑτάρους ἀγέτω.
"Let someone going to the black ship of great-hearted Telemachus bring all his comrades"

2.2.2 Non-specific irrealis indefinites

In this section I provide examples of irrealis indefinites, whose major feature is that they are usually accompanied by the modal particle κε that creates the necessary conditions for them to appear. Within *irrealis non-specific* environments we also have imperatives, future tense, and different types of modality (Haspelmath 1997:44). In Homer, we find the simple use of *irrealis* moods, either subjunctive or optative, as well as the future tense. I have found in the first books of the Iliad and the Odyssey up to 15 occurrences of this type of indefinite. It is crosslingustically common to find languages that do not mark this function with a special indefinite series. According to Haspelmath (1997: 44) there are quite a few languages in which the same indefinite pronoun is used for both *irrealis non-specific* and polarity environments. As we see, this is the case of Ancient Greek, although Homeric Greek has a fairly recurrent way of marking this function by placing the modal particle before the indefinite.

(16) *Irrealis*
a. Il. 3, 220 (modal particle + subjunctive)
φαίης κε ζάκοτόν τέ **τιν'** ἔμμεναι ἄφρονά τ' αὖτως.
"You would have considered someone to be both exceedingly furious and stupid in this manner".

b. Od. 1, 396 (modal particle + subjunctive)
τῶν κέν **τις** τόδ' ἔχῃσιν, ἐπεὶ θάνε δῖος Ὀδυσσεύς·
"Some of these will have this honor, since noble Odysseus is dead".

c. Il. 6, 459 (subjunctive mood)
καί ποτέ **τις** εἴπησιν ἰδὼν κατὰ δάκρυ χέουσαν·
"And at a some point someone would say looking at you weeping"

d. Od. 4, 756 (future tense)
ἀλλ' ἔτι πού **τις** ἐπέσσεται, ὅς κεν ἔχῃσι δώματά θ' ὑψερεφέα καὶ ἀπόπροθι πίονας ἀγρούς
"but possibly there still will be someone, who(ever) possesses the high-roofed halls and the rich fields at a distance".

2.2.3 Polarity Items

2.2.3.1 τις, τι "anyone, anything, any"

Roberts & Roussou (2003: 161-4) already support the idea of taking τις as a polarity element in view of its recurrent appearance in non-veridical contexts. Moreover, Horrocks (2010: 347) and Muchnová (2014:489) already argue in favour of considering the indefinite pronoun τις as a negative polarity element for its complementary syntactic distribution with οὐδείς, which is used as an emphatic NPI after a preceding negative in Classical Greek (=NC) [132], both forms being equivalent in their meaning "any" under the scope of negation. Therefore, this complementary distribution of τις and οὐδείς in postverbal position does point out to the polarity nature of the former in Ancient Greek. Horrocks (2014: 64) is more cautious and considers this kind of indefinites polarity-like elements. He asserts that since NPI-like τις cannot be generalized to pre-negative positions, an alternative means of expressing the non-existence of people/things had to be employed in sentences in which a negative would otherwise follow an indefinite. As far as I am aware, there are but three instances of τις in pre-negative positions in Homer, which I will later discuss.

From a typological perspective, I believe Horrocks is mistaken in assuming that all indefinite pronouns are polarity(-like) items. I think there are other elements that should be taken into account in order to attain a complete picture of polarity in early Greek. We have already seen several cases where τις is a non-affective element within positive (veridical) environments functioning as a *specific known* existential indefinite "some" as well as *irrealis* indefinite. Also, contrary to Horrocks, I would rather call those negative indefinites n-words than negative polarity items (especially in Classical Greek). These items are usually employed in NC formations, where two negatives do

[132] The redundancy in the use of οὐδείς after a verbal form preceded by standard negation is evident, as we will see in section 2.3.

not cancel each other out, but they rather express one single instance of negation. In Homeric Greek those cases where the indefinite is within positive/veridical environments can be either non-affective (*specific known*, *specific unknown*, and *irrealis* indefinites), or free-choice items (FCIs). In both scenarios, negation is absolutely excluded, although FCIs behave as polarity items along with the rest of affective polarity items. In Table 10, I summarize all uses of τις and of the indefinite relatives that we have seen so far.

Table 10: Indefinite pronouns and indefinite relatives in Homeric Greek

(Non-)Polarity Elements	Indefinite form	Meaning
specific-known	ὅς/ ὅ τε, εἷς	"someone who, something that, a certain"
specific-unknown	τις	"some"
irrealis items[133] (non-specific)	(κεν) τις	"some"
affective polarity items (negation, conditionals, interrogatives ,etc.)	τις	"any"
free-choice items	ὅς τις/ τι, ὅς κε(ν)	"anyone; anyone who, whoever"
direct negation	οὐδείς	"no one; not"

Dispite that Homeric Greek does not formally distinguish between polarity and non-polarity indefinites, we can track down the semantic dependencies of indefinites through their syntactic distribution. It can be noted that in the Homeric texts there is a strong tendency for indefinites to appear in non-veridical contexts.

In (17-23) I provide examples for each of the different uses of τις, whose distribution displays polarity in a varied number of semantic contexts. Notice that I have introduced other non-veridical semantic contexts besides conditionals and interrogatives that are not found in Il. 1-6 / Od.1-6. These contexts such as standard of comparison and disjunction also activate τις as a polarity item.

[133] It should be noted that Giannakidou (1998) deems as *irrealis* all those non-veridical contexts that trigger the presence of affective polarity items. On the contrary, in Haspelmath's semantic map, *irrealis* is one of the types of the indefinites that do not entail polarity (non-affective) but that should be taken as non-specific indefinite in the same way as polarity elements. Both are rendered in English by the "some" series.

(17) Negative
a. Il. 1, 534
οὐδέ **τις** ἔτλη /μεῖναι ἐπερχόμενον,
“nor did anyone dare to remain seated at his coming”

b. Il. 5, 761
ἄφρονα τοῦτον ἀνέντες, ὃς οὔ **τινα** οἶδε θέμιστα.
“having let go this madman, who does not regard any law.

(18) Conditional
a.Il. 2, 367
εἰ δέ τις ἐκπάγλως ἐθέλει οἶκόνδε νέεσθαι, /ἀπτέσθω ἧς νηὸς ἐϋσσέλμοιο μελαίνης,
“But if any man is desperately anxious to depart for home, let him lay his hand on his black, well-benched ship”

b. Il. 3, 402
εἴ **τίς** τοι καὶ κεῖθι φίλος μερόπων ἀνθρώπων,
“If is there anybody here of mortal men dear to you”

(19) Interrogative
Od. 1, 408
ἠέ **τιν’** ἀγγελίην πατρὸς φέρει ἐρχομένοιο, /ἦ ἐὸν αὐτοῦ χρεῖος ἐελδόμενος τόδ’ ἱκάνει;
“Does he bring any tidings of your father’s coming, or did he come to further some matter of his own?”

Od. 4, 489 (2, 32)
ἦέ **τις** ὤλετ’ ὀλέθρῳ ἀδευκέϊ ἧς ἐπὶ νηὸς /ἠὲ φίλων ἐν χερσίν, ἐπεὶ πόλεμον τολύπευσεν.
“Or did anyone perish by a cruel death on board his ship or in the arms of his friends, when he had wound up the skein of war?”

(20) Before-clause
Od. 6, 465
πρίν γε **τι** σῆς τε βοῆς σοῦ θ’ ἑλκηθμοῖο πυθέσθαι.
“Before (I) learn anything of your cry and of your being dragged to captivity”.

(21) Final
Od. 3, 200
ἄλκιμος ἔσσ’, ἵνα **τίς** σε καὶ ὀψιγόνων ἐὺ εἴπῃ.
“Be valiant, so that any of the men not yet born might speak well of you”

Od. 4, 162-3
ἐέλδετο γάρ σε ἰδέσθαι, ὄφρα οἱ ἤ **τι** ἔπος ὑποθήεαι ἠέ **τι** ἔργον.
“For he was eager to see you, so that you might put in his heart any word or deed”

(22) Indirect negation (NegRasing)
Od. 22, 67
ἀλλά τιν’ οὐ φεύξεσθαι ὀΐομαι αἰπὺν ὄλεθρον.
“I do not think anyone shall escape from utter destruction”

Il.1, 289
πάντων μὲν κρατέειν ἐθέλει, πάντεσσι δ' ἀνάσσειν, /πᾶσι δὲ σημαίνειν, ἅ **τιν'** οὐ πείσεσθαι ὀΐω.
"He wishes to have power over all, rule over all, and to all give orders, which I do not think anyone will obey"

(23) Disjunction
Od. 4, 329
εἴ ποτέ τοί τι πατὴρ ἐμός, ἐσθλὸς Ὀδυσσεύς,/ἢ ἔπος ἠέ **τι** ἔργον ὑποστὰς ἐξετέλεσσε δήμῳ ἔνι Τρώων,
"If ever my father, noble Odysseus, promised you a word at all or any deed and fulfilled it in the lands of the Trojans…".

Od. 16, 260
καὶ φράσαι, ἤ κεν νῶϊν Ἀθήνη σὺν Διὶ πατρὶ /ἀρκέσει, ἦέ **τιν'** ἄλλον ἀμύντορα μερμηρίξω.
"Consider whether for us two Athene, with father Zeus, will be enough, or whether any other helper shall I bring to mind"

Od. 20, 297
ὄφρα καὶ αὐτὸς ἠὲ λοετροχόῳ δώῃ γέρας ἠέ **τῳ ἄλλῳ** δμώων,
"So that he himself may give a present either to the bath woman or to any other of the slaves"

(24) Comparative
Od. 17, 81
αὐτὸν ἔχοντα σὲ βούλομ' ἐπαυρέμεν ἤ **τινα** τῶνδε·
"I prefer that you keeping those things enjoy them, rather than anyone of them"

In table 11, I summarize each one of the semantic contexts where τις is attested and its uses in the first six books of the *Iliad* and the first six books of the *Odyssey*. I have included neither those instances where τι operates as an emphasizing particle nor those cases of τις (τε), which, as I will argue later on, may not represent an indefinite of the *$*k^{w}is$-$k^{w}e$* type conveying a FC value.

Table 11: τις/ τι and its semantic contexts (Il. 1-6; Od. 1-6)

	Negation	Conditional	Interrogative	Indirect Negation	Free-Choice	Irrealis	Specifi-unknown
τις/τι "any"	88	15	4	1	12		
τις/τι "some"						15	42
TOTAL: τι x31; τις x139 = 173							

As we can observe in Table 11, affective indefinites are by far the most numerous. If we put together both affective and free-choice indefinites, both polarity sensitive indefinites reach up to 72 % of the total. On the other hand, if we add *non-specific irrealis* indefinites to specific-unknown indefinites, the addition only amounts up to 28% of total. The exact numbers are shown in Table 12.

Table 12: Percentages of the uses of the indefinite pronoun τις /τι (Il. 1-6; Od. 1-6)

	non-veridical environments	free-choice	non-specific irrealis	non-specific known	TOTAL
Polarity	108 (61%)	19 (11%)			127 (72%)
Non-polarity			15 (8%)	42 (20%)	57 (28%)
TOTAL					184 (100%)

2.2.3.2 ἄλλος τις and πότερος

There are other three indefinites that I have not yet discussed: the collocation ἄλλος τις and πότερος.

The collocation τις ἄλλος/ ἄλλος τις is attested up to 87 times in total in both Homeric texts, most cases in tmesis configuration [134]. When it is under the scope of negation, especially under the scope of a focus scalar particle such as οὐδέ, the word order is τις ἄλλος [135]. As it was the case of the single indefinite τις, τις ἄλλος is mostly attested in affective contexts: negation (x61), conditional (x7), question (x5). There are also examples of *specific unknown* (x10) and *irrealis* (x1). See (25a-b) for examples. Similarly to its Latin cognate *aliquis*[136], ἄλλος τις is attested in the same functions including conditionals and interrogatives. Unlike Lat. *aliquis*, however, ἄλλος τις is not grammaticalized and it is abundantly attested in negative contexts. On account of this, I have included this formation in the analysis of τις [137].

(25)
a.Od. 6, 68
νῦν δ’, ἐπεὶ ἡμετέρην τε πόλιν καὶ γαῖαν ἱκάνεις, /οὔτ’ οὖν ἐσθῆτος δευήσεαι οὔτε **τευ ἄλλου**,

[134] Also, cf. ποθεν ἄλλοθεν (Od. 5, 490) and πῃ ἄλλῃ (Od. 2, 127; 3, 251; 18, 288; 22,140).
[135] We will see below how scalar focus particles have the power to attract all types of pronominals to the left periphery of a sentence.
[136] Also cf. Arm. *ayl imn/inč ‘/ok‘* < PIE **h₂ el-io- kʷi/o-*. Although not with the same etymology, Toch. A *aläk sam* PTch. **ālle-kä* < PIE **h₂elno-* follows the same configuration.
[137]Cf. Toch. *ālak ksa* (Pinautl 2008: 214).

"And now, since you have come to our city and land, you shall lack neither clothing nor anything else"

b. Il. 5, 897
εἰ δέ **τε'** ἐξ **ἄλλου** γε θεῶν γένε' ὧδ' ἀΐδηλος, /καί κεν δὴ πάλαι ἦσθα ἐνέρτερος Οὐρανιώνων.
"If you have been born so destructive of any other of the gods, then long before this you would have been lower than the heavenly gods".

Finally, we have πότερος with just one occurrence, see (26). Some IE cognates are Go. *ƕaþaruh,* Lat. *uter*/*neuter* and Ved. (*ná*) *katara caná*.

(26)
Il.5, 85
Τυδείδην δ' οὐκ ἂν γνοίης **ποτέροισι** μετείη.
"But of Tydeus's son you could not have told which (army) of the two he was"

2.2.3.3 Particle *k^wi in Homer [138]

Before discussing free-choice in Homer I would like to say something about the value of k^wi as an emphasizing particle. As we know, the pronominal stem *k^wi attests two distinct values in the Homeric texts: the first one relates to its quantificational status as the neuter singular of the pronoun τις with the meaning of "something, anything". The second value is of an emphasizing particle of IE inheritance "at all", marking emphasis on the previous word or on the context which it is embedded in, especially after a negative, conditional or interrogative operator. The first thing to say about the latter value is that in Homer is the most frequent one and it is in tight connection with negation and other non-veridical contexts such as conditionals and interrogatives. It seems that its prototypical function is to reinforce certain semantic contexts that activate its presence as a polarity item. If we turn to its Indo-Iranian cognates Av. -*ciṯ*, OP -*ci*, Ved. -*cid*/ *kim* [139], they perform similar functions. In the one hand, they are invested in the creation of indefinites and they appear univerbated with negatives as in Ved. *nákiḥ* or Av. *naēciš*. On the other, besides the quantificational value, they can function as scalar focus particles "even, also".

[138] Cf. Dunkel (2014ii: 448-451).
[139] In Vedic, there are two different developments of the labiovelar attested: *k^wi- > *ci*- and *k*-*i*. It seems that the latter would have been the expected development and the former points to the influence of other forms. Moreover, it is safe to say that *kim* mostly performs a quantificational role in contrast with *cid* that operates as an emphasizing particle.

Taking into account the data from the two earliest Greek sources, Mycenaean and Homeric Greek, I gather that there were two stages where the pronominal stem *k^wi is connected to negation. The first one is attested in Mycenaean times. We have the form *o-u-ki-te-mi* "(a table) without any support". Here this negative absorption form relates to Ved. *nákiḥ*, Av. *naēciš*, although here it operates as a morphological negative indefinite. Secondly, the *k^wi stem is utilized once again as both an enclitic quantifier ("some, any") and as an enclitic reinforcement ("at all")[140]. The dissimilation of the labiovelar in *o-u-ki-* might point out that this form is older than *o-u-qe*, where the word boundary might explain the retention of the labiovelar. Moreover, Indo-Iranian does not attest any such collocation (NEG-k^we), as I will discuss in the Indo-Iranian chapter. As can be observed in Table 13, there are only five instances of τι as a *specific* indefinite "something" and, whenever τι is functioning as a particle, it is attested in affective contexts.

Table 13: Pronoun τι and particle τι and their semantic contexts (Il. 1-6; Od. 1-6)

PIE *k^wid (neuter singular)	nonveridical environments (affective contexts)			non-polarity environment (specific indefinite)
Quantification	31 (neg.)	2 (cond.)	2 (interr.)	5
Emphasizing particle	89 (neg.)	3 (cond.)	2 (interr.)	0
TOTAL occurrences of τι: 134	129			5

In (27-30) I provide examples of τι as an emphasizing particle:

(27) Negation
Il. 6, 102
ὣς ἔφαθ᾽· Ἕκτωρ δ᾽ οὔ **τι** κασιγνήτωι ἀπίθησεν.
"So he spoke, and Hector in no way was disobedient to his brother".

Il. 3, 164
οὔ **τί** μοι αἰτίη ἐσσί, θεοί νύ μοι αἴτιοί εἰσιν.
"You are in no way to blame in my eyes; it is the gods, surely, who are to blame"

(28) Conditional[141]
Od. 4, 193
καὶ νῦν, εἴ **τί** που ἔστι, πίθοιό μοι·
"And now, if it is at all possible, listen to me"

[140] For the latter value, cf. οὔτι πη "in no wise", οὔτι πω "not yet" attestd in some poetic authors, probably by influence of the epic diction.
[141] Od.3, 98-99; Od. 4, 328.

(29) Interrogative[142]
Il. 5, 762
Ζεῦ πάτερ, ἦ ῥά **τί** μοι κεχολώσεαι, αἴ κεν Ἄρηα /λυγρῶς πεπληγυῖα μάχης ἐξ ἀποδίωμαι;
"Father Zeus, will you be at all angry if I strike Ares painfully and drive him out of the battle? ".

Od.3, 72
ἤ **τι** κατὰ πρῆξιν ἦ μαψιδίως ἀλάλησθε /οἷά τε ληϊστῆρες ὑπεὶρ ἅλα,
"Is it on business at all or do you wander at random over the sea…?"

Indeed, there are certain cases where the difference between both uses (as a quantificatifier or as an emphasizing particle) is hard to tell apart. This is the case of (30), for instance [143].

(30)
Il.4, 22
ἤτοι Ἀθηναίη ἀκέων ἦν οὐδέ **τι** εἶπεν.
"Athene to be sure held her peace and said nothing// and did not speak at all"

2.2.4 Free-choice indefinites: τις, ὅς τις, and ὅς κε

2.2.4.1 The indefinite-relative ὅς τις

In this section I will deal with morphological indefinites that express the free-choice value. Early Greek might have never grammaticalized a free-choice indefinite such as τις τε. Cf. Lat. *quisque*. To the contrary, Homeric Greek either resources to the simple τις "anyone" or to indefinite relatives "anyone who, whoever" for the expression of free-choice. Notice that Latin too shows free-choice relatives (*-uis* and *-libet* series) that in time became overt markers of free-choice indefinites. As I will show, Homeric Greek is in the middle stage between dependent indefinite relatives and free-relatives, both of them with a free-choice nuance.

Although at a first glance, Ancient Greek does not lexicalize the distinction between free-choice and other (non-) polarity elements, ὅς τις (Myc. *jo-qi* < **(H)yós k*^{w}*is* [144]) conveys a free-choice meaning, being accompanied most of the time by the subjunctive mood [145], as in (31a-b) As we know, free-choice elements are always in

[142] Il. 4, 93; Il. 2, 238; Il.5,421.
[143] Il. 2, 122; Il, 5, 567.
[144] Cf. Piquero (2017: 308) and Rix (1992: 186).
[145] Cf. Monro (1891: 235), Jannaris (1897: 167); Crespo *et al*. (2003: 380), Smyth (1920: 97); Chantraine (1968:242); Probert (2015:98-108;123-24); Schwyzer (1950ii: 335).

non-episodic sentences with a generic and habitual value, which emanates from the expression of alternatives of *x* number of possible worlds –whence the universal/distributive nuance assumed sometimes by free-choice indefinites. Therefore, ὅς τις is never in the scope of negation, neither under the scope of an antimorphic marker (*not*) nor of an antiadditive operator (*no one*). ὅς τις is an indefinite relative pronoun formed by the addition of the indefinite pronoun to the relative.

(31)
a. Il 2, 188
ὅν τινα μὲν βασιλῆα καὶ ἔξοχον ἄνδρα κιχείη, /τὸν δ' ἀγανοῖς ἐπέεσσιν ἐρητύσασκε παραστάς·
"Whatever king and man of note he met, to his side he would come and with gentle words seek to restrain him"

b. Od. 5, 448
αἰδοῖος μέν τ' ἐστὶ καὶ ἀθανάτοισι θεοῖσιν, /ἀνδρῶν **ὅς τις** ἵκηται ἀλώμενος,
"Reverend even for the inmortal gods is whoever of men comes as a wanderer".

According to Probert (2015:103), the main meaning ὅς τις is the speaker's ignorance of something/someone's exact identity and is usually found with relative clauses that restrictively modify or delimit their antecedent. Contrary to English indefinite relatives "whoever", "whatever", which are confined to inherently maximalizing relative clauses (free-relatives), Greek ὅς τις can appear in the restrictive postnominal type. Also noted by Probert is the fact that ὅστις is only available when the antecedent (if any) plus a relative clause pick out something whose identity is not precisely known to the speaker.

ὅς τις can also introduce indirect questions, as in (32 a-c), especially after verbs of *knowing* or *saying* [146]. Notice that this indirect question function is also performed by other indefinite relative pronouns such as ὅπου and ὅπποτε that I have not included in my analysis.

(32)
a. Od. 3, 70
νῦν δὴ κάλλιόν ἐστι μεταλλῆσαι καὶ ἐρέσθαι ξείνους, **οἵ τινές** εἰσιν,
"Now truly it is seemlier to ask and enquire of the strangers who they are".

[146] Such as *to know*, *to learn*, *to get information*, *to ask*, *to make an inquiry*, *to tell*, *to say*, etc. For more examples of this use, see Od. 3, 18; 4, 138; 4, 423, 4, 469; 8, 28; 14, 195; 16, 424 etc.

b. Il. 3, 193
“εἶπ’ ἄγε μοι καὶ τόνδε, φίλον τέκος, **ὅς τις** ὅδ’ ἐστίν·
“Tell me of that man there, dear child, who he is”.

c. Il. 1, 64
ὅς κ’ εἴποι **ὅ τι** τόσσον ἐχώσατο Φοῖβος Ἀπόλλων,
“Whoever might tell us why Phoebus Appollo has conceived such anger”

There are 133 instances of ὅς τις in Homer, 31 of them in the first six books of the Iliad and the Odyssey. In almost all cases of sentences headed by ὅς τις, negation is excluded. There is one difficult example, as we can see in (33), where a scalar prohibitive marker μηδ' accompanies the relative indefinite. According to context, it is understood that this second prohibitive should go along with the verb ὑπεκφύγοι or φύγοι and the relative indefinite is marked for accusative because it is the object of the verb φέροι within the relative clause. Be as it may, here the negative should be taken as non-episodic, so it is still safe to assert the free-choice value of this clause.

(33)
Il 6, 58:
τῶν μή τις ὑπεκφύγοι αἰπὺν ὄλεθρον χεῖράς θ’ ἡμετέρας, μηδ’ **ὅν τινα** γαστέρι μήτηρ
κοῦρον ἐόντα φέροι, μηδ’ ὃς φύγοι,…
“Of them, let not one escape sheer destruction and our hands, not even the boy whom(ever) his mother carries in her womb; let not even him escape, …”

ὅς τις and ὅς τε can be heads of free-relative clauses, as we already saw in their indirect interrogative function. To this, free-relative clauses headed by ὅ τι and ὅ τε should be added, which operate as if they were causal/completive conjunctions, as in (34 a-c).

(34)
a. Il 5, 331
γινώσκων **ὅ τ’** ἄναλκις ἔην θεός
“knowing that she was a weakling goddess”

b. Il. 1, 518-19
“ἦ δὴ λοίγια ἔργ’, **ὅ τέ** μ’ ἐχθοδοπῆσαι ἐφήσεις / Ἥρηι,
“Surely there will be sorry work here, since you will involve me in strife with Hera”

c. Il. 5, 349
ἦ οὐχ ἅλις, **ὅττι** γυναῖκας ἀνάλκιδας ἠπεροπεύεις;
“Is it not enough that you deceive weakling women?”

Although in most cases there is a clear antecedent, there are examples where the relative indefinite does head a free-relative clause, especially in connection with the verb "to be", without performing either of the two functions described above (i.e. interrogative or causal/completive functions), as we can see in (35 a-b).

(35)
a. Od. 15, 359
ὡς μὴ θάνοι **ὅς τις** ἐμοί γε ἐνθάδε ναιετάων φίλος εἴη καὶ φίλα ἕρδοι.
"so don't let die anyone who is a friend living there and does me kindness".

b. Il. 2, 686
οὐ γὰρ ἔην, **ὅς τίς** σφιν ἐπὶ στίχας ἡγήσαιτο·
"since there was not anyone who would lead them into the ranks.

We can observe in the Greek of the second century that ὅς τις can be used as an independent free-choice indefinite, as in (36).

(36)
Lucianus, Nigrinus, 15, 2
ὅστις δὲ πλούτου ἐρᾷ καὶ χρυσῷ κεκήληται καὶ πορφύρᾳ καὶ δυναστείᾳ μετρεῖ τὸ εὔδαιμον.
"Anyone (who) loves richness and is called upon by gold, and measures his or her happiness by adornment and power.

We will see in the next chapter (in section 3.2.2.1.3) some Indo-Iranian parallels of this indefinite relative.

From a typological point of view, very often non-specific free relatives can be expressed by the *ever*-series relative pronouns ("whoever", "whatever") [147], which happen to be the main source of free-choice expressions in Homeric Greek. A free relative is a relative clause that does not modify a noun phrase, but constitutes a noun phrase in itself. Etymologically speaking, MG οποιοσδήποτε "anyone, whoever" also makes use of similar elements: a *wh*-determiner, an assertive particle δη, and an *ever*-particle, ποτε. Cf. Giannakidou (2001:2). The *ever*-particle, seemingly equivalent to the τις element in the indefinite relative, contributes to suggest that there is a rather large number of theoretical possibilities that a given set might turn out to have. In Homeric Greek we find a middle stage in which non-free relatives (at leat most of them) are being used as FCIs. Indeed, in most cases they are usually in close connection with a

[147] Also pointed out by Giannakidou (1998), these pronouns are closely related to interrogatives, which is one the functions carried out by ὅστις, as we will see.

clear antecedent for which they supply appositive information. According to De Vries (2002), free relatives are, in principle, without an overt nominal head [148]. Moreover, it is not completely rare to find languages that only lexicalize the free-choice meaning through the use of non-specific free relatives such as Maltese. See (37).

(37) Haspelmath (1997: 55).

Tista'	*tieħu*	*liema*	*tuffieħa*	*trid*
you:can	you:take	which	apple	you:want

"You can take any/whichever apple you want".

The case of ὅς τις, though, is rather different. Following Lehmann (1984), de Vries (2002:42) states that there are free relatives with a pronominal head (e.g. an indefinite element) that possess a default indefinite, non-specific reading: this type of free relatives is called *false* free relatives [149]. This is exactly the case of the indefinite relative ὅς τις "anyone who". Thus, in Ancient Greek relative sentences headed by ὅς τις have, both a nominal element (antecedent) –sometimes this is not case as we already saw *true* free relatives performing a variety of functions– and a pronominal head represented by the enclitic τις/ τι [150].

As discussed in the introductory chapter, in Ancient Greek the irrealis moods such as subjunctive or optative (with or without modal particles) also operate as non-veridical contexts that activate polarity elements such as free-choice indefinites. In relation to constructions invested in temporal, conditional and relative clauses, Van Emde Boas et al. (2019: 497) discuss about a "prospective" subjunctive + ἄν, an "indefinite" subjunctive + ἄν, and an "iterative" optative (for historic sequences). The first one refers to actions which the speaker presents as occurring or probably occurring in the future. The "indefinite" subjunctive refers to actions, which occur habitually (repeatedly, typically, generically) in or up to the present, which, in turn, would activate free-choice indefinites. If we take a look at the moods used in ὅς τις clauses, one can observe that most sentences have the aorist subjunctive, present optative, or future indicative. The mood choice perfectly connects with the non-episodic nature of the sentences headed by ὅς τις as a FCI. By far, the aorist subjective is the mostly used

[148] According to Dayal (1997:99), free-relatives are definite descriptions.

[149] On the other hand, *true* free relatives as attested in Homer do possess a "definite" interpretation.

[150] Classical Armenian does not have a nominal free-choice indefinite (as Maltese) and its meaning is usually expressed by a relative + indefinite construction. Hieroglyphic Luwian and Tocharian B have the same strategy. See chapter 4.

mood for these contexts and, in spite of being aorist, it expresses an extra-temporal state of affairs, usually ascribed to the gnomic aorist which, within the non-past uses, is usually utilized to express general tendencies, habits, etc[151]. There are also examples with aorist indicative, perfect indicative, and aorist optative. With the indirect question functions, there seems to be a tendency to use the indicative in its different tenses.

Thus, ὅς τις formations should be considered an example of sub-triggering that refers to the cases where the free-choice indefinite appears grammatically followed by a relative clause, giving rise to a universal-like reading (Giannakidou 2011: 52), as in the clause *Peter talked to **any** woman **who** came up to him.* According to Smyth (1920:98), indefinite relatives can also be expressed by the addition of τις to other types of relative pronouns such as ὁποῖος, ὁπότερος, ὅσος, and οἷος.

English does not formally distinguish between the polarity item *any* and the free-choice item *any*. On the contrary, Romance languages and Modern Greek have special indefinite series for the expression of free-choice indefinites such Sp. *cualquiera,* It. *qualunque*, and MG οποιοσδήποτε[152]. Liddel & Scott mention that in Classical Greek we already find formations such as ὁδήποτε, ἀδήποτε meaning "anything, whatever", which somehow resemble what we see in MG. Van Emde Boas et al. (2019: 565) assert that the indefiniteness of an indefinite relative may be emphasized by adding ποτε[153]. In the same line, Threatte (1996: 342-3) also provides some evidence of such structures in the Attic inscriptions: ὅνδηποτεοῦν (IG,II^{2}1339.8, 57-6 BCE) and ἧσδηποτεοῦν (IG,II^{2}1368.133, ca.162-3 ACE). Smyth (1920:98,561), Schwyzer (1950:216), and Crespo et al. (2003: 380-1) claim that ὅσ(τις) δή ποτε, οἷος δή ποτε, and ὅσος are used in Classical Greek for the expression of indefinite relatives. It seems that the equivalence in Hellenistic times of ὅστις and ὅς as a definite relative triggers the substitution of ὅστις by other relative forms such as ὁποῖος, which was gradually acquiring a non-determinancy meaning.

[151] Cf. Wakker (1992).

[152] Notice that in Modern Greek the forms οποιος "whoever" and ότι "whatever" are used for the formation of free-relatives. According to Giannakidou (1998), the licensing of such form is different from that of proper free-choice elements such as οποιοσδήποτε "whoever, anyone", οτιδήποτε "whatever, anything".

[153] Also cf. ὁπόταν "whenever", ὅπου ἄν "wherever".

2.2.4.2 τις as a nominal free-choice item

There are also cases where τις can be employed as a free-choice item, as we can see in (38). Also Liddel & Scott mention how τις can be used instead of ὅς τις with the meaning of "whoever". As we already saw in the typological description of free-choice items, imperatives used in the expression of permissions are very common sematic contexts that allow free-choice indefinites to appear. In Homer, the third person singular imperative activates τις as a free-choice. Notice that in (38a) εἴ τις has a parallel in Lat. *ūnusquisque*.

(38)
a. Il. 1, 144
εἴ τις δέ **τις** ἀρχὸς ἀνὴρ βουληφόρος ἔστω
"Let any man that is a counselor take command".

b. Il. 1, 62
ἀλλ' ἄγε δή **τινα** μάντιν ἐρείομεν ἠ' ἱερῆα, /ἠ καὶ ὀνειροπόλον…ὅς κ' εἴποι ὅ τι τόσσον ἐχώσατο Φοῖβος Ἀπόλλων.
"But let us ask any seer, or priest, or reader of dreams….who might tells us why Phoebus Apollo has conceived such anger".

c. Od. 4, 735
ἀλλά **τις** ὀτρηρῶς Δολίον καλέσειε γέροντα,
"But now let anyone quickly summon the aged Dolius, my servant".

According to Van Emde Boas et al. (2019: 357), in Classical Greek the indefinite τις can also convey a collective sense close to "everyone", especially in combination with πᾶς and ἕκαστος. Crespo *et al*. (2003) also attributes this universal/distributive value to τις. In Homer there might be some examples of this distributive value, as in (39). I believe the distributive/universal semantic nuance allegedly attributed to the indefinite is being provided by the very nature of τις as a free-choice item. In Classical Greek it seems that the system tends to reinforce the universal reading by means of pronouns such as πᾶς and ἕκαστος.

(39)
Il. 2, 382 ff.
εὖ μέν **τις** δόρυ θηξάσθω, εὖ δ' ἀσπίδα θέσθω, / εὖ δέ **τις** ἵπποισιν δεῖπνον δότω ὠκυπόδεσσιν, /εὖ δέ **τις** ἅρματος ἀμφὶς ἰδὼν πολέμοιο μεδέσθω,
"let anyone/everyone whet well his spear and keep his shield ready, and let anyone well give food to his swift-footed horses, and looking well to his chariot on every side let anyone meditate on war".

In (40), we can still see in Classical Greek how τις functions as free-choice indefinite.

(40)
Ar. Vesp. 1431
ἔρδοι **τις** ἣν ἕκαστος εἰδείη τέχνην.
"May anyone/everyone do what art each one knows"

In Homeric Greek, there are also remnants of a form τις τε (x24)[154] that seems to operate as a free-choice item, as in (41a-b) [155].

(41)
a. Il. 2, 292
καὶ γάρ **τίς θ'** ἕνα μῆνα μένων ἀπὸ ἧς ἀλόχοιο / ἀσχαλάαι σὺν νηῒ πολυζύγωι,
"For anyone (who is) parted even one single month from his wife in his benched ship becomes impatient".

b. Od. 5, 120
ἤν **τίς** τε φίλον ποιήσετ' ἀκοίτην...
"If anyone takes a mortal as her own bed fellow…".

τις τε resembles its Latin cognate *quisque* "each, every; anyone" [156], whose distributive and universal values derive from its free-choice semantics expressing multiple alternatives in non-episodic clauses. However, we still find uses of Lat. *quisque* meaning "anyone" as in (42a-b).

(42)
a. Plaut. Amph. 558
Tuos sum, proinde ut commodumst et lubet ***quidque*** *facias.*
"I am yours, so may you do anything that suits your convenience and taste".

b. August. Ord. 2, 17, 45
soloecismos autem quos dicimus fortasse ***quisque*** *doctus diligenter in oratione mea reperiet*
"Perhaps any carefully instructed person will find in my speech so-called "solecisms."

Opfermann (2017) considers *quisque* a universal free-choice indefinite, which etymologically speaking, perfectly fits with the inherited means of expression of free-choice: *$*k^{w}is$-$k^{w}e$*. Haspelmath (1995) mentions the fact that in a variety of languages

[154] It is also related to the interrogative τίπτε (< *$k^{w}id$-$k^{w}e$).
[155] Cf. Denniston (1934) [1954]: 533).
[156] Also cf. Lat. *quāque* "in whichever way".

there are universal quantifiers formed from free-choice elements. Tovar (1946:80) already discussed the distributive/ universal uses of this *quisque* as well as of *quisquis* [157]. However, although at a first glance the form τις τε might have evolved into τις because of the loss of the enclitic particle, most examples where τις τε is attested go along with the comparative ὡς. I think that behind those alleged τις τε forms there are in truth cases of ὡς τε formations in tmesis configuration. See (43). Thus, I believe that Greek might have never developed a *$k^{w}is$-$k^{w}e$ indefinite.

(43)
Od. 4, 535
ὥς τίς τε κατέκτανε βοῦν ἐπὶ φάτνῃ.
"As someone slays an ox at he corn crib"

Final clauses headed by conjunctions ὄφρα and ἵνα are also non-veridical contexts that activate polarity elements. Chatzopoulou (2019) asserts that final clauses are one of the many non-veridical contexts that activate the presence of the prohibitive negative marker usually accompanied by the subjunctive mood. Therefore, she considers that μή is one more example of a polarity item. If we go example by example, we can see similarities and marked differences between ὄφρα-clauses and ἵνα-clauses. Out of a total of 358 occurrences of ὄφρα in the Homeric texts, there are only three instances where μή is negating the subordinating clause. In turn, out of a total of 178 occurrences of ἵνα, there are 27 instances with μή and only two with οὐ. It seems that ὄφρα avoids negative contexts and, on the contrary, ἵνα favours them, especially when non-epsiodic, as shown by the presence of μή.

The presence of τις/τι in final clauses should be an indicator of polarity. We already mentioned the fact that free-choice elements are considered non-veridical polarity elements with the only peculiarity that excluded from episodic negative contexts. Thus, the use of τις (nominative singular) in both ὄφρα (x3) and ἵνα (x3) clauses should be considered non-veridical and with a free-choice meaning, as can be observed in (44). In section 2.2.3.1 dealing with the different semantic contexts where τις/τι is attested I have included again final clauses as triggers of polarity elements, since sometimes is difficult to discern between affective items and free-choice items, both of them sharing polarity as a feature.

[157] We will see in chapter on Indo-Iranian that the repetition of the interrogative/indefinite stem is an inherited strategy–and a very productive one at that –to express free-choice: besides Latin, Oscan, Hittite, Lycian, Avestan, Vedic, Khotanese (Middle Iranian) are among other languages that attest this strategy.

(44)
Il. 3, 353
ὄφρα **τις** ἐρρίγησι καὶ ὀψιγόνων ἀνθρώπων /ξεινοδόκον κακὰ ῥέξαι,
"So that anyone, even of those men yet to be born, might shudder to do harm to the host".

Il. 4, 300
ὄφρα καὶ οὐκ ἐθέλων **τις** ἀναγκαίηι πολεμίζοι.
"so that even unwilling, anyone might fight out of necessity".

2.2.4.3 The indefinite-relative ὅς κε(ν)

Finally, I would like to discuss one more strategy available in Homeric Greek for the expression of free-choice that has not been given much of attention: I refer to the relative ὅς κε(ν) [158]. In this section I argue that the modal particle κε(ν) is an inherited element employed in the expression of free-choice alongside the relative pronoun. Dunkel (2014 ii: 430), Monro (1891:225), Chantraine (1968: 507), Mayrhofer (1992 i: 304) and Beekes (2010:661) connect the modal particle κε with Ved. *kam* and Hitt. *kan* (< **kom*)[159]. At least from a functional point of view, there seems to be no correlation whatsoever among these three particles and I would dare to say is quite speculative to suggest the possibility of divergence of functions among etymologically related forms. In the same line as my argumentation, Dunkel (2014ii: 34 fn17) acknowledges that ὅς κε and ὅς ἄν can have a meaning close to "whoever".

In (44) I provide a few examples of this relative form. ὅς κε(ν) is widely attested in Homer, amounting up to 161 occurrences in both the *Iliad* and the *Odyssey* overall [160]. The Homeric texts are very prolific in the use of modal particles: there are 1182 occurrences of κε and 307 of ἄν. Both are *irrealis* particles and, although, according to Willmott (2007: 199-204), they do not feature consistently with any value of the subjunctive or optative throughout the Homeric texts, they usually go with the subjunctive in subordinating clauses in order to convey non-veridical actions/situations, whose main feature is the expression of probability and generic reference. Together

[158] According to Beekes (2010: 661), the final *n* of this Homeric modal particle would be an Ionic feature, the well-known ν ἐφελκυστικόν.
[159] In relation with its functions in Vedic, see Macdonell (1910: 225) and Delbrück (1888: 503-4). For Hittite, see Hoffner & Melchert (2008: 366-374).
[160] I do not take into account the neuter singular instances (ὅ κε), which usually have values different from free-choice.

with the optative, they can appear in both main and subordinating clauses, expressing possibility.

Both particles have a dialectal distribution. Particle κε is mainly attested in epic Greek, Cypriot, Lesbian, Thessalian, Boeotian, North West Greek, Doric (including Sicilian *koiné*) and Cretan (not Pamphilian) [161]. Particle ἄν [162], on the other hand, is only attested in Arcadian and Ionic-Attic Greek.

In the first six books of the Iliad, almost 64% of the occurrences of κε are within relative or conditional clauses. Moreover, in the first six books of the Odyssey, roughly 50% of the occurrences appear as well in those types of subordinating clauses. Therefore, there seems to be also a strong tendency for this particle to appear in conditionals, as in εἰ κεν / αἰ κεν. I will turn back to this point in my explanation of the IE inheritance of particle **ke* in chapter 4.

Most cases of the neuter singular ὅ κε (50 out of 66), which I have not included in my analysis, are attested in the collocation εἰς ὅ κε with a temporal meaning "until" [163]. In the total number of occurrences, I have not considered collocations such as ὅς τίς κε either. I will explain that its origin is directly connected with other parallel relative structures attested in Indo-Iranian and Italic. ὅς κε(ν) can appear within tmesis configuration, both elements being interfered by Wackernagel position particles such as μέν, δέ, and γάρ, which always take the second position at the beginning of a sentence. According to our analysis, most occurrences of non-neuter ὅς κε(ν) should be interpreted as free-choice expressions: I count 20 examples in the Odyssey (Od. 1-6) and 18 examples in the Iliad (Il. 1-6). As in the case of ὅς τις and free-choice τις, negation is excluded from relative sentences headed by ὅς κε(ν). Similarly to ὅς τις and ὅς τε, ὅς κε can also introduce indirect questions [164].

(45)
a. Il. 1, 118
ὅς κε θεοῖς ἐπιπείθηται, μάλα τ' ἔκλυον αὐτοῦ
"Whoever obeys the gods, they listen to him a big deal"

b. Od. 6,158-9

[161] For the dialectal distribution, Cf. Buck (1953) and Giannakis (2018).
[162] Cf. Dunkel (2014ii: 28).
[163] Remember that the nom./acc. neuter singulars of the relatives ὅς τις and ὅς τε also express other semantic values different from the rest of the paradigm. Overall, there are eleven cases of ὅ κε and five of ἅ κε.
[164] Cf. Schwyzer (1950: 312).

κεῖνος δ’ αὖ περὶ κῆρι μακάρτατος ἔξοχον ἄλλων, /**ὅς κέ** σ’ ἐέδνοισι βρίσας οἶκόνδ’ ἀγάγηται.
“But that one in his turn is blessed in heart above all others, whoever shall prevail with his gifts of wooing and lead you to his home”.
c. Il. 1, 139
ὃ δέ κεν κεχολώσεται **ὅν κεν** ἵκωμαι.
“Angry will he be, to whomever I come”

d. Il. 4, 306
ὃς δέ **κ’** ἀνὴρ ἀπὸ ὧν ὀχέων ἕτερ’ ἅρμαθ’ ἵκηται, ἔγχει ὀρεξάσθω…
“But whatever man from his own chariot can come at a chariot of the foe, let him thrust with his spear”

As mentioned in the introduction, relative structures have been traditionally divided into restrictive and non-restrictive (or appositive) relative sentences. There is also a third type called maximalizing relatives, which are similar in meaning to definiteness. What differentiates maximalizing from normal relatives is the fact that the latter denotes just a set, while the former denotes everything on that set or a mass of stuff [165]. According to Probert (2015: 129), in Ancient Greek there is a distinction between normal postnominal relatives sentences, on the one hand, which can be either restrictive or appositive, and maximalizing relative sentences (free or headless relatives), on the other [166]. As discussed in relation to ὅς τις relatives (“whoever”), the indefinite τις added to the relative ὅς functions as a domain-widening particle *ever* that enhances the expression of a wide range of possibilities, which closely resembles the *x* alternatives treated in relation to free-choice semantics. I believe that such an analysis should be considered for ὅς κε(ν) relatives as well, which seem to display a similar distribution as maximalizing relatives in the form of free-relatives (45c) and correlative-relative constructions (45a-b), on the one hand, and postnominal restrictive relative, on the other (45d). The same as ὅς τις, ὅς κε(ν) also fails to appear in non-restrictive relative clauses. Although most of them have a clear free-choice interpretaion, not all instances of this collocation are as clear as the examples above, as we can observe in (46).

[165] This characteristic of maximalizing relatives, in connection with the domain-widening nature of the *ever* particle makes this kind of indefinite relative prone to associate very often with maximalizing relative clauses (not necessarily as a free-relative).
[166] In his explanation of the different stages of grammaticalization carried out by *k^wi-/k^wo- for the expression of its different semantic values attested in the historical languages, Luján (2009:232) considers this maximalizing type of relatives to represent the middle stage of grammaticalization from interrogative *k^wi-/k^wo (“who?”) to relative *k^wi-/k^wo (“who”).

(46)
Il. 2, 229
ἦ ἔτι καὶ **χρυσοῦ** ἐπιδεύεαι, **ὅν κέ** τις οἴσει /Τρώων ἱπποδάμων ἐξ Ἰλίου υἷος ἄποινα…;
"Or do you still also want gold, which(ever) one the horse-taming Trojans will bring you out of Ilios as a ransom for his son…?"

Contrary to ὅς τις, ὅς κε(ν) would not grammaticalize as an indefinite relative in Classical Greek. This fact, of course, can be easily explained by the dialectal distribution of the modal particles κε and ἄν and how the modal particle κε in Classical Greek is completely substituted by Ionic-Attic ἄν[167]. Instead, we observe in Classical Greek and Koine Greek that the collocation ὅς ἀν conveys a free-choice meaning, as in (47a-b). This collocation is labelled by Van Embde Boas *et al*. (2019: 497) as *indefinite subjunctive* + ἄν, which also operates within conditional and temporal clauses.

(47)
a. Pl. Grg. 510 c
Λείπεται δὴ ἐκεῖνος μόνος ἄξιος λόγου φίλος τῷ τοιούτῳ, **ὃς ἂν** ὁμοήθης ὤν.
"That one is left as the only possible friend for such a man, whoever has the same character."

b. Demosth. Phil. I, 6, line 5
καὶ γὰρ συμμαχεῖν καὶ προσέχειν τὸν νοῦν τούτοις ἐθέλουσιν ἅπαντες, **οὓς ἂν** ὁρῶσι παρεσκευασμένους καὶ πράττειν ἐθέλοντας ἃ χρή.
"For everbody wants to fight along and pay attention to those, whoever they see prepared and willing to do what it is necessary".

c. Luke 8, 18:
ὃς ἂν γὰρ ἔχῃ, δοθήσεται αὐτῷ.
"For whoever has, it will be given to him"

d. Luke 9, 48
ὃς ἂν δέξηται τοῦτο τὸ παιδίον ἐπὶ τῷ ὀνόματί μου ἐμὲ δέχεται
"Whoever receives this child in my name, he receives me"

If we turn to the Ionic-Attic inscriptions we can see that the same collocation is attested as early as the 5th century BCE. See (48). Threatte (1996: 332-333) acknowledges the existence of generic relative clauses formed by the addition of the modal particle to the simple relative pronoun. It seems that this structure is more frequently used in the fifth century onwards for the indefinite relative compound ὅς τις [168].

[167] Cf. Goldstein (2013).
[168] Moreover, the accusative singular forms of the simple relative plus the modal particle are more frequent than the compound.

(48)
IG I^{3}131.6 (Old Attic alphabet; 440-432 BCE?)
ἔπειτα τοῖς [*h*]αρμ /[οδίο καὶ τοῖς Ἀριστογεί]τονος ***ḥ*****ὸ[ς] ἂν** εἶ ἐγγύτατα γένος,
"Then for the descendants of Harm[odios and Aristogei]ton, whoever is nearest in kin"

We also find in Homer ὃς ἄν functioning in the same way, as in (49). However, there are only eight instances of this collocation in the entire corpus. The Arcadian dialect also attests ὃς ἀν, as in (50). Cf. Dubois (1986: 219).

(49)
Od. 21, 294-5
οἶνός σε τρώει μελιηδής, ὅς τε καὶ ἄλλους βλάπτει, **ὃς ἄν** μιν χανδὸν ἕλῃ μηδ' αἴσιμα πίνῃ.
"It is wine that wounds you, honey-sweet wine, something that works harm to other also, whoever takes it in great gulps, and does not drink in decent measure"

(50)
IG 262, I 14-16
ὀΜέοι ἄν χρεστηριον κακρίνῃ ε γνωσίαι κακριθήε τῶν χρημάτων, πὲ τοῖς *F*οικιάται <ς> τᾶς θεῶ ἔναι
"For whomever has been condemmed by the oracle, after a trial, to the confiscation of possessions, with the slaves (these) should be given to the goddess"

Also, if we turn to Cretan Greek, we observe in the Gortyn Laws the use of ὅς κε, as shown in (51a-b). Cf. Bile (1988; 2016). Boeotian (Claflin 1905: 75; 79-80) and Argolic (Nieto Izquierdo 2008: 544; 549) show the same collocation for the expression of relative-indefiniteness.

(51)
a. GL I, 2-3
ὅς κ' ἐλευθέρōι έ δōλōι μέλλεῖ ἀνπιμōλεῖν, πρὸ δίκας μὲ ἄγεν.
'Whosoever may be likely to contend about a free man or a slave is not to seize him before trial"

b. GL XII, 24-5
ἄνθρōπον **ὅς κ'** ἄγηι πρὸ δίκᾱς αἰεὶ ἐπιδέκεθαι
"Whoever apprehends a man before trial, he must take him always by his side"

The Phrgyian data is particularly interesting in this case, when compared to Greek parallel constructions. New Phrygian attests two different indefinite relatives: ιος νι and ιος κε (Brixhe 2008:785). The former might be related to the Greek demonstrative forms attested in Thessalian and Arcadian: ὅ-νε and ο-νι respectively. Cf. Buck (1952: 100). ιος κε shows a close resemblance to the Greek modal particle κε attested in Homer and in a number of other Greek dialects. Moreover, if we are to

assume particle NP κε directly derives from IE *k^we (Ligorio & Lubotsky 2018: 1821; 1823), then the connection is solid. Diakonoff & Neroznak (1985: 38, 40-41) only connect this particle with the IE enclictic particle *k^we as a coordinating conjunction. Brixhe (1997: 59; 62) goes further and suggests that κε has other values, although he does not see the need to reconstruct two different forms for these two different values [169]. As Drew-Bear et al. (2008:109-116) show, late New Phrygian inscriptions had adopted the ιος νι collocation as the default form for the expression of free-choice indefinite relative.

Getting back to the Greek material, Thessalian from the Pelasgiotis has a very peculiar form κινν́ι κε, which, according to Méndez Dosuna (2018: 274; 284-5) should be interpreted as an interrogative-indefinite pronoun plus the modal particle in the function of an indefinite relative pronoun, similar in value to ὅς τις [170]; see (52). Buck (1955: 102) already mentions how Thessalian can use the indefinite as an indefinite relative. Also for Cretan, Bile (1988: 289) suggests the interpretation of the syntagm τις κα as a relative clause, as in (53). This phenomenon is called by Weiss (2009: 351) Interrogative to Relative Shift and he explains it as a bridge between the interrogative use of *k^wi-* in indirect questions and the relative use of *k^wi-* taken as an argument of a transitive verb.

(52)
556A.6–7 (Pelasgiotis, late 4th c. BCE)
αἴ ἐστί **κιννί κε** θεῶν δρᾶντες
“If it is possible to offer to whomever of the gods…”

(53)
LG III, 29
λακεν κ' αἰ **τι κ'** ὁ ανεδ δοι
“If she obtains whatever (his) husband gives (her)”

I slightly disagree with Méndez Dosuna’s interpretation of κινν́ι κε: I believe the exact equivalence of κις κε is not only connected with ὅς τις as he suggests (=Att. ἔστιν ὅτῳ ἄν), but also with ὅς κε as the other default indefinite relative. The collocation κις κε should be taken as the missing link between both indefinite relatives, κις κε and ὅς κε being employed with similar functions. If we take a look at the Homeric data, a

[169] In Ligorio & Lubotsky (2017: 1816-1831), the relative plus the modal particle is not dealt with.
[170] In Od. 11, 218, we can see a free-choice τις followed by the modal particle κε within a temporal clause. Also cf Laconian Greek (Striano 1989: 68), Lac. αε δε τις κα SEG 26, 461.16 (Sparta: decree 426-5 BCE).

collocation ὅς τίς κ' is attested up to four times. I provide some examples of this structure in (54a-d)[171]. In the next chapter I will connect this collocation with an Indo-Iranian similar structure: IIr. **ya- ka/kim-ca/cid*.

(54)
a. Il. 10, 44
χρεὼ βουλῆς ἐμὲ καὶ σέ, διοτρεφὲς ὦ Μενέλαε, /κερδαλέης, **ἥ τίς κεν** ἐρύσσεται ἠδὲ σαώσει /Ἀργείους καὶ νῆας…
"In need we are, both you and I, Menelaus, nurtured by Zeus, of clever counsel, whichever (it is that) will save and preserve the Argives and their ships"

b. Od. 3, 355
ἔπειτα δὲ παῖδες ἐνὶ μεγάροισι λίπωνται /ξείνους ξεινίζειν, **ὅς τίς κ'** ἐμὰ δώμαθ' ἵκηται.
"And children thereafter are left in the halls to entertain strangers, whosoever shall come to my house".

c. Il. 3, 279
καὶ Ποταμοὶ καὶ Γαῖα, καὶ οἳ ὑπένερθε καμόντας /ἀνθρώπους τείνυσθον, **ὅτις κ'** ἐπίορκον ὀμόσσηι, /ὑμεῖς μάρτυροι ἔστε,…
"and you rivers and you earth, and you who in the world below take vengeance on men who are done with life, whoever has sworn a false oath: you be witness…".

d. Il. 1, 527
οὐ γὰρ ἐμὸν παλινάγρετον οὐδ' ἀπατηλόν /οὐδ' ἀτελεύτητον, **ὅ τί κεν** κεφαλῆι κατανεύσω.
"for no (word) of mine may be recalled, neither false nor unfulfilled, to whichverver I bow my head to"

One further argument in favour of considering that the modal particle κε as a free-choice construction is the collocation ᾧ κ' ἐθέλω, which resembles what we see in the Latin free-choice indefinites *quislibet* or *quisuis*. It is is attested up to 19 times in the Homeric poems. Haspelmath (1997: 133) hypothesizes about the source constructions of this free-choice indefinites and suggests they are non-specific free relative clauses such as (55).

(55)
Od. 2, 54
δοίη δ' **ᾧ κ' ἐθέλοι** καί οἱ κεχαρισμένος ἔλθοι·
"He would give (her) to whomever he wants and comes to favour"

[171] Also Il 1, 527; Il. 10, 307.

2.3 Negative scalar focus particles οὐδέ and οὔτε and negative indefinites

As we know, Homeric Greek has a negative polarity item τις/τι performing the function of direct negation "not any", which fails to be fully grammaticalized into a negative indefinite. On the other, we have a few occurrences of a negative indefinite οὐδείς / οὐδέν "no one/nothing" that, later on, would become an n-word (polarity item) within NC structures in postverbal position (concretely in Classical Greek).

Two main factors come into play in the creation of a new negative indefinite series in early Greek. On the one hand, Haspelmath (1997:157-8) assures that crosslinguistically scalar focus particles, besides their involvement in the formation of indefinites –especially by means of emphasizing particles meaning "even"– have an important role in deriving *negative* indefinites. Homeric Greek attests one negative scalar particle οὐδέ "not even" that can also convey simple negative coordination "nor, and not" and can appear without the need of a previous negative, unlike οὔτε, as we will see. In turn, there is a phenomenon called negative attraction, which consists in a strong natural tendency that entails the attraction of the negative notion to any word that can easily be made negative. The result of this attraction is negative absorption, which is among the principal means of creating new negative indefinites alongside the Jespersen Cycle. De Swart (2010: 118-19) defines it as a broader incorporation system that mainly affects indefinites, but also can be seen in adverbs and conjunctions [172]. This is the case of Myc. *o-u-qe* and of οὔτε, οὐδέ, and οὐδείς /οὐδέν [173]. Nevertheless, in Homer, negative absorption does not take place often as shown by the tmesis configuration between negation and indefinite pronouns such as τις /τι and indefinite adverbs such as πως, πω, πῃ, etc. Not even the form οὐκέτι should be considered an example of negative absorption, since there are instances where tmesis also takes place [174].

In Homer negative attraction makes an indefinite pronoun or adverb to come immediately after a negative marker and takes place in conjunction with both the NegFirst principle and the SOV word order. All examples we have taken into account so far show the NegFirst principle underway, with the only exception of those cases where the negative marker οὐκί is attested in a postverbal position, as we have already seen in (8), repeated here for the ease of reference.

[172] Cf. Horn (2001: 256-258).
[173] Also οὐτίδανος and οὐδενώσορος.
[174] For the word order followed by postpositions such as enclitics, cf. Bertrand (2010:358-467).

(8)
Il. 2, 238
ὄφρα ἴδηται / ἤ ῥά τί οἱ χὴμεῖς προσαμύνομεν, ἦε καὶ **οὐκί**·
"so that he may learn whether we, too, aid him in any way or not"

Also we have observed that the indefinite τις in all cases (nominative, accusative, genitive, and dative) always appears preverbally as expected by Homeric word order. See (56a-d) for examples. Almost all indefinites occur very early in the sentence and, when in negative sentences, they appear under the direct scope of negation[175]. Therefore, there are multiple factors for the early appearance of indefinites (*wh*-words, in general) in the left periphery, always in preverbal position. The SOV word order appears to have a very strong hold over the sentence structure and the order of meaningful elements. This will be the case not only for τις, but also for the newly created indefinite οὐδείς, which in Classical Greek, however, will be encountered in different clause positions, there being already a postverbal position available in Homer.

(56)
a. Od.3, 120 (nominative)
ἔνθ' οὔ **τίς** ποτε μῆτιν ὁμοιωθήμεναι ἄντην / ἤθελ',
"There no one ventured to vie with him in counsel".

b.Il. 17, 275 (accusative)
οὐδέ **τιν'** αὐτῶν /Τρῶες ὑπέρθυμοι ἔλον ἔγχεσιν,
"Not any man did the Trojans high of heart slay with their spears".

c.Od. 21, 210 (genitive)
τῶν δ' ἄλλων οὔ **τευ** ἄκουσα /εὐξαμένου ἐμὲ αὖτις ὑπότροπον οἶκαδ' ἱκέσθαι.
"Of the others, I have not heard anyone praying that I might come back again to my home".

d.Il. 16, 227 (dative)
οὔτέ **τεωι** σπένδεσκε θεῶν,
"nor was he used to pour drink offerings to any of the gods".

There are only a few exceptions (in the entire Homeric corpus) to this order of elements, as in (57), where the indefinite is clearly not under the scope of negation. We already discussed some examples where indirect negation takes place. Because of the semantics of the verb (*think, consider*, etc), these two examples should not be taken as exceptions to the rule that states indefinites must come early in the sentences, especially when a sentence is negated.

[175] Cf. Monro (1891:337).

(57)
Od. 11, 366
ὅθεν κέ **τις** οὐδὲ ἴδοιτο·
"from where someone might not have even seen"

According to Haspelmath (1997:207-8), negative attraction and negative absorption are crosslinguistically common and both are involved in NegFirst-driven univerbations, which is expected to occur with all indefinites in verb-final languages such as Homeric Greek that possesses a SOV word order. However, Classical Greek, as we know, gets rids of this formation (οὐ τις) and turns to the other series (οὐδείς). As we can see in Table 14, Homeric Greek is a strict NQ language, always forced to place indefinites performing roles of subject (τις) and object (τινα) in preverbal position. Although the nominative form is not attested (οὐδείς) one can assume its being available in the system. Finally, in Homer the postverbal use of the negative indefinite neuter singular (οὐδέν) is also attested. In Table 15, I summarize the diachronic development into Classical Greek, where οὐδένα/οὐδέν becomes a NPI in NC structures as a special polarity indefinite "any" without a negative nuance after a preverbal negator: "οὐ V > οὐδέν = "not V anyone".

Table 14: Homeric Greek: strict NQ language within an SOV-bound word order

PREVERBAL	POSTVERBAL
NI > V or I > NV	**V > NI** or NV > I
οὐδείς[?] / **οὐ τις** (τινα) **> V** no one	**V > οὐδέν** or *οὐ V > τινα nothing

Table 15: Classical Greek: strict NQ and non-strict NC language within an SVO-bound word order

PREVERBAL	POSTVERBAL
NI > V or I > NV	**V > NI** or **NV > I**
οὐδείς / οὐ(δέ) τις > V no one	**V > οὐδέν or οὐ V > οὐδένα** no one not anyone

Now we should take a look at what the role of οὐδέ is in the creation of a new negative indefinite series. οὐδέ has two main values: 1. negative coordinator/clause boundary marker, and 2. scalar focus particle[176]. In the Homeric texts there seems to be clear cases of negative attraction triggered by the negative scalar focus οὐδέ. While the

[176] Cf. Denniston (1954: 190-97) and Willmott (2011: 63-79). For Classical Greek, also see Lambert (2012: 99-109), Denizot (2013: 33-51), Crespo (2015: 207-232), and Redondo (2018: 303-326).

tmesis configuration [177] is very frequent with standard negation and the indefinite form, οὔ τις (127 occurrences, 48 in tmesis) / οὔ τι (165 occurrences, 18 in tmesis), the cases of temesis within the collocation with the scalar focus particle and the indefinite are very scarce, οὐδὲ τις (69 occurrences, 10 in tmesis)/ οὐδὲ τι (x123). These numbers show how frequently οὐδὲ τις operates as a fixed collocation and how οὐδὲ τι "nor/not even at all" functions as a formulaic/idiomatic collocation, where the paricle τι is an emphazising particle, not a quantifier.

The only other IE language that attests a similar negative coordinator is Avestan. On the one hand, Old Avestan *naēdā* works always before the second conjunct after the standard negation placed in the first conjunct: *nōiṯ... naēdā* "neither…nor". Young Avestan, on the other hand, displays more irregular formations such as *naēδa* as the sole negator in a given clause and *naēδa…naēδa* for the correlative negation. These last two patterns seem similar to the ones observed in οὐδέ. But the similarities do not stop there. Young Avestan also attests *naēδa.ciṯ* (= οὐδὲ τι) and *naēδa.cim* (= οὐδὲ τις) [178]. Thus, Avestan supports the idea of considering οὐδέ to be more prone than other particles to attract the indefinite stem $*k^{w}is$ / $*k^{w}id$ to make it negative.

So why does οὐδέ not univerbate with the indefinite τις/τι, as *οὐδέτις? Jannaris (1897:165; 354) explains this by the absence in τις/τι of normal endings for each gender that would have rendered it inconvenient in popular speech. According to Denizot (2014: 69-88) the creation of οὐδείς does not respond to the wish of expressing emphasis in contrast to οὔ τις, but to the need of forming a negative quantifier in comparison with οὔ τις, which describes indeterminacy without any kind of quantification. οὐδέ provides a decreasing orientation to the numeral εἷς, making οὐδείς suitable for forming a true negative quantifier series that would eventually be invested in NC structures [179]. Only secondarily, the neuter singular (οὐδέν) would embody a reinforced negative particle similar to οὔ τι "not at all". From there, through different stages of Jespersen cycle οὐδέν would acquire an adverbial use –already attested in Homer– becoming a fully-fledged negative marker after Classical times. Cf. Chatzopoulou (2019).

[177] Especially prompted by particles and pronominals.

[178] YAv. *naēδa.ca* (4 occurrences) = οὐδὲ τε (11 occurrences). Although the scalar focus nature of οὐδέ should not be considered for *naēdā* /*naēδa*, or at least it is not clearly evident, the fact that the syntactic similarities are so close does not favour Kuipert's (1964) proposal to derive *naēdā/ naēδa* from *nōiṯ - u*, despite its phonetic plausibility.

[179] Cf. Horrocks (2014: 43-83) and Gianollo (2018).

By the early Classical times, οὐδείς [180] was already a fully functional *no*-series indefinite. However, in Homer οὐδείς /οὐδέν is only attested 21 times. Most occurrences are in the neuter singular, with only two exceptions in the dative singular, as in (58).

(58)
Od. 11, 515
ἀλλὰ πολὺ προθέεσκε, τὸ ὃν μένος **οὐδενὶ** εἴκων.
"but would run forward far to the front, yielding to none in his prowess".

Almost all occurrences of this negative indefinite are also preverbal, similarly to τις. In (58) we can see that this order is altered, although it might be explained by the nature of the verbal form in need of an infinitive.

(58)
Od. 4, 195 (= Od. 19, 264)
νεμεσσῶμαί γε μὲν **οὐδὲν** /κλαίειν, ὅς κε θάνῃσι βροτῶν καὶ πότμον ἐπίσπῃ.
"I am not displeased at all to cry (for) whoever of the mortals (that) might have died and met his destiny."

In addition, there are four instances of οὐδέ + εἷς, not univerbated, as in (60). This has been traditionally explained by the fact that the negative indefinite was not completely grammaticalized by the time of the Homeric texts. In Classical Greek, this grammaticalization would have been fully achieved. Notwithstanding, as we already saw, in Homer there is still one more form that shows negative absorption: οὐδενώσορος (Il.8.178) [181]. This early attestation of a univerbated form of οὐδείς as a determiner seems rather puzzling. This, added to the fact the there are already examples of the οὐδέν being used as a negative adverb, should make us wonder whether by the Homeric times οὐδείς had already achieved its full grammaticalization as a negative quantifier.

(60)
Il. 8, 234
νῦν δ' **οὐδ' ἑνὸς** ἄξιοί εἰμεν Ἕκτορος.
"But now can we match not even one, Hector."

[180] Cf. Haspelmath (1997: 223).
[181] Another negative indefinite not attested in Homer is οὐδαμῶς (Herod. +) < ἀμο-. Cf. Ved. *sama*-, Go. *sums*. In Classical Greek there are plenty of other adverbs formed by the scalar focus particle, such as οὐδέποτε, οὐδεπώποτε, etc.

As mentioned, οὐδείς appears in NC structures in Classical Greek. Negative concord consists in the simultaneous occurrence of (preverbal) standard negation and (postverbal) negative indefinites expressing a single instance of negation, as in (61a). Classical Classical Greek is a non-strict NC language, since it can make use of the negative indefinite as the sole negator of a sentence, without the presence of standard negation, as in (61b). However, both τις and οὐδείς are mainly in preverbal position in Homer. In Classical Greek, οὐδείς manages to move to the right periphery in the direct object function –probably motivated by the change of word order into SVO, which enables the negative agreement with a preverbal negative marker to take place, without cancelling the negatives out.

(61)
a. Hdt. 3, 68, 2
καὶ ὅτι **οὐκ** ἐκάλεε ἐς ὄψιν ἑωυτῷ **οὐδένα** τῶν λογίμων Περσέων.
"He did not summon any notable Persian into his presence".

b. Hdt. 2, 32, 5
ὡς **οὐδεὶς** αὐτοῦ οἶδε τὰς πηγάς.
"But no one knows the source of this (the Nile)".

In Herodotus, we have 847 occurrences of τις/τι that operate as a specific indefinite "some" as well as a non-specific indefinite "any" covering polarity functions, including negation, as in (62). On the other hand, we have 554 instances of οὐδείς, οὐδεμία, οὐδέν "no one, nothing" functioning as the negative indefinite *par excellence*. Horrocks (2014: 46) asserts that in Classical Greek τις overlaps with οὐδείς, τις being neutral and οὐδείς more empathic.

(62)
Hdt. 7152, 5
οὐκ ἔχω ἀτρεκέως εἰπεῖν, οὐδέ **τινα** γνώμην περὶ αὐτῶν ἀποφαίνομαι ἄλλην γε ἢ τήν περ αὐτοὶ Ἀργεῖοι λέγουσι.
"I cannot say with exactness, nor do I now declare any other opinion except the one the Argives themselves say".

Willmott (2011:82) detects pseudo-NC structures in Homer under the form of οὐδὲ … οὐδέ, attested up to 15 times, as in (63a). In (63b) I provide another example, where multiple negatives do not cancel each other out. Possibly, (63a) can be explained with asecond οὐδέ working as a emphasizing particle "not even" stressing the focus of the negation over one of the sentential elements for the sake of emphasis.

(63)
a. Il. 5, 22
οὐδὲ γὰρ **οὐδέ** κεν αὐτὸς ὑπέκφυγε κῆρα μέλαιναν·
"Nor he would have escaped black fate, not even he himself" (my own translation)

b. Od. 8, 280
τά γ' **οὔ** κέ τις **οὐδὲ** ἴδοιτο, **οὐδὲ** θεῶν μακάρων·
"so that no one could see them, not even (anyone) of the blessed gods"

I would like to add two more NC-like features found in Homer that can help to explain NC structures as found in Classical Greek. I already mentioned the fact that in Homer negative quantifiers can express negation by themselves, which is a non-strict NC language feature = strict NQ. The second one relates to the appositive nature of many instances of correlative negation in Homer, as can be observed in (64). The correlative negation conveys appositive information that has already been negativized by the SN particle. In English we may use either the positive or the negative reading for this correlation. In Greek, the negative seems to be futile within these correlations. As we have seen, in Homer οὐδέ shows several features that can explain diachronically the creation of οὐδείς.

(64)
Od. 4, 805-6
οὐ μέν σ' **οὐδὲ** ἐῶσι θεοὶ ῥεῖα ζώοντες κλαίειν **οὐδ'** ἀκάχησθαι
"The gods that live at ease won't allow you to cry or to be distressed/ The gods that live at ease will allow you to neither cry nor be distressed".

So far I have treated the negative scalar focus particle οὐδέ, which plays a major role in the formation of a new negative series: οὐδείς "no one", οὐδέποτε "never", etc. Yet, in the title of this section, I have implied the existence of another focus scalar particle, οὔτε, although it has never been traditionally considered so. As we know, most ocurrences of οὔτε in Homer are responsive, οὔτε…οὔτε "neither…nor", and it usually provides and negates appositive information which a prior negative marker has already negated, as in (65).

(65)
Od. 6, 160-161
οὐ γάρ πω τοιοῦτον ἴδον βροτὸν ὀφθαλμοῖσιν, / **οὔτ'** ἄνδρ' **οὔτε** γυναῖκα·
"For I have not yet seen with my eyes a mortal such as you, neither a man nor a woman"

However, there are a number of arguments in favour of considering οὔτε a scalar focus particle too. Firstly, as we saw in Mycenaean Greek, *o-u-qe* has a number of

features that make it closer to οὐδέ [182]. Secondly, there are six instances in Homer where οὔτε does not appear in a responsive way, but it appears alone, as in (66), or following standard negation οὐ [183]. Furthermore, in the same way as οὐδέ, it is followed by indefinites and the particle τι, οὔτε τις (x24) [only 5 times in nominative] //οὔτε τι (x23).

(66)
Il.7, 433.
ἦμος δ' **οὔτ'** ἄρ πω ἠώς, ἐτι δ' ἀμφιλύκη νύξ,
"When it was not even yet dawn, but night was still halflight…"

Moreover, in the Hellenstic period the form οὐθείς is attested not only in the Greek literature, but also abundantly in the *koiné* inscriptions. It has been suggested that this form entails the aspiration of the voiceless dental. This phonetic change seems rather puzzling considering there is no parallel evidence of this phenomenon. Therefore, I believe that, in truth, we are dealing with a case of univerbation between οὔτε and the numeral one, in the same way as οὐδέ and εἷς.

There are two more pieces of evidence that point to the real nature of οὔτε as a scalar focus particle. The first one comes from Modern Greek where we have οὔτε functioning as a fully-fledged scalar particle meaning, "not even" [184]. The second argument in favour of my view comes from Latin. Gianollo (2017: 51-77; 2018: 228-250) has recently argued that particles such as *neque* are multifunctional elements that can express various types of focus (additive or scalar) as well as coordinative functions.

Finally, in Homer preverbal multiple licensing takes place. A single negation is able to have scope over multiple elements when these elements are on the preverbal left periphery, as in (67). οὐδείς/οὐδέν, on the other hand, does not entail multiple licensing yet, despite being able to negate a phrase by its own. In Classical Greek, however, it is able to do that.

(67)
Od. 1, 216
οὐ γάρ πώ τις ἐὸν γόνον αὐτὸς ἀνέγνω.
"For not yet anyone has recognized his own son".

[182] Cf. Salgarella (2015).
[183] The other instances are Il. 24, 566, Il. 24,368, Od. 9, 147, Od.13, 207 and Od.11, 483.
[184] Cf. Chatzopoulou (2019: 24-27).

Overall, there seem to be three main factors operating in the left periphery dislocation of indefinites in Homeric Greek: SOV word order, NegFirst principle, and Negative Attraction.

2.4 Indefinite adverbs in Homeric Greek

As in the case of τις, interrogative and indefinite forms are signalled out differently by the stress and clause initial placement of interrogative pronouns/adverbs, on the one hand, and the unstressed enclitic nature of the indefinites, on the other. Concerning the data of Table 18, I take into account all cases in the *Iliad* and the *Odyssey* of negative markers (including μή) along with indefinite adverbs. As we see, more than double of all indefinites, with a ratio of 459/655 (70.22%), occur in affective contexts such as negation, conditionals, and interrogatives. On the other hand, only 29.77% of the indefinites, with a ratio of 195/655, take place within non-affective environments. Notice that not all indefinites display the same distribution in relation to the different semantic contexts. Also I would like to mention an evident peculiarity in the use of the scalar focus particle οὐδέ: it does not conjoin as often with those indefinites, πω, πῃ and πως which are inherently polarity-sensitive elements due to its own etymology –the instrumental suffix -h_1 –when compared to those indefinites that do not display such a feature: ie. τις and ποτε. However, the ontological category of person makes use of the scalar focus particle and eventually recurs to a true quantifer (the numeral one) for the creation of the negative indefinite οὐδείς [185]. που is not included in either group of indefinites, since, as I will argue, this indefinite avoids negative contexts on account of its condition as a modal adverb. It must be stressed that the instrumental suffix -(*e*)h_1 is not represented in any of the regular Greek or Latin paradigms, but it can be clearly seen in some adverb (Sihler 1995: 252).

Table 16: Indefinite adverbs in Homeric Greek

INDEFINITES	NEGATION	CONDITIONALS	INTERROGATIVES	NON-POLARITY
που (x161)	*(x2)	(x42)	(x14)	(x91)
πως (x94)	(x68)	(x24)		*(x2)
πω (x126)	(x126)			
πῃ (x21)	(x16)		(x4)	(x1)
ποθί (x21)	(x3)	(x12)		(6)

[185] As we know, τις is left in the system performing some similar functions as οὐδείς, especially in NC structures.

ποθέν (x13)	(x1)	(x10)		(x1)
ποτε (x233)	(x111)	(x25)		(x93)
TOTAL=653	(327)	(x113)	(x17)	(x195)

2.4.1 *k^w*ó-te* > ποτε "sometime, anytime"[186]

The behaviour of this indefinite adverb is very close to τις. There is no formal difference between its specific use "sometimes, once (in preterite tenses)" and its non-specific use "anytime, ever". It is attested 233 times in the Homeric texts. As shown in Table 18, its distribution is fairly homogenous. It is mainly used in negative and conditional clauses, but it is also widely attested in non-affective semantic contexts. See (68) for examples.

(68)
a.Od. 4, 692 (negative)
κεῖνος δ' οὔ **ποτε** πάμπαν ἀτάσθαλον ἄνδρα ἐώργει.
"He never dealt intemperately with a man at all".

b.Od. 2, 342 (conditional)
εἴ **ποτ'** Ὀδυσσεὺς οἴκαδε νοστήσειε καὶ ἄλγεα πολλὰ μογήσας.
"If Odysseus ever returns home even after many grievous toils".

c.Il. 6, 132 (non-affective)
ὅς **ποτε** μαινομένοιο Διωνύσοιο τιθήνας σεῦε κατ' ἠγάθεον Νυσήϊον.
"who drove down once over the sacred mount of Nysa, the nurses of raging Dionysus".

d.Od. 24, 88 (irrealis)
ὅτε **κέν ποτ'** ἀποφθιμένου βασιλῆος ζώννυνταί τε νέοι καὶ ἐπεντύνωνται ἄεθλα·
"When at some point, having the king passed away, the young men gird themselves and prepare to win the prizes".

In Herodotus, κοτε (x65) behaves in a similar way: it is attested within affective contexts (negation and conditional) and within non-affective contexts. In addition, we already find κοτε working as an emphasizing particle of the indefinite relative free-choice clauses: ὅστις κοτὲ and ὅκως κοτὲ.

[186] Cf. *k^w*i-te* > OP *citā* "a long time, a while" Cf. Dunkel (2014 ii: 467), Schmitt (2014: 158). Sihler (1995: 385) still asserts that ποτε is derived from *k^w*o-k^w*e*. Therefore, its cognate should have been IIr. *(*yá*-)…*kás ca* "whoever". Neither the semantics nor the typology points to this proto-form to have been reanalyzed as a temporal adverb. Myc. *o-te* "when" –with a dental stop that implies that it does not come from *k^w*e* given that this phonetic development (*k^w*e* > *t*) is post-Mycenaean– seems to be a better choice to explain the adverb ποτε.

2.4.2 *k^wó-dhi* > ποθί "somewhere, probably"[187] and *k^wó-dhe(-n)* > ποθέν "from some place".

Most of the time, ποθέν is attested within conditionals and other non-verdical contexts as in (69a-b).

(69)
Il. 18, 322
πολλὰ δέ τ' ἄγκε' ἐπῆλθε μετ' ἀνέρος ἴχνι' ἐρευνῶν, εἴ **ποθεν** ἐξεύροι·
"Many mountains he has ranged looking for the footsepts of the man, if he can find him anywhere".

Od 14, 374
εἰ μή πού τι περίφρων Πηνελόπεια /ἐλθέμεν ὀτρύνῃσιν, ὅτ' ἀγγελίη **ποθὲν** ἔλθῃ.
"Unless perhaps wise Penelope asks me to come, when tidings come to her from anywhere"

ποθί, according to Liddel & Scott, is a poetic variant of που. This analysis is consistent with the fact that ποθί has also come to possess an adverbial modal value[188] "perhaps, possibly", as in (70), which value is actually more widely attested in the examples than the local nuance, there being only five clear instances of the latter. As can be observed in Table 18, its occurrences cover mainly conditional and non-affective contexts, just like που. In the three cases with negation, it has a local meaning "anywhere".

(70)
Od. 1, 379
αἴ κέ **ποθι** Ζεὺς δῷσι παλίντιτα ἔργα γενέσθαι·
"If Zeus may perhaps grant that deeds of requital occur".

2.4.3 *k^wé -so* [189] > που "somewhere; possibly, perhaps"

Although traditionally considered a local adverb –most of the time in close connection with local prepositions, see (71)– I argue in this section that που's main function is of a modal adverb expressing probability, as in (72 a-b). It is not clear the connection between the genitive and the expression of spatial locativity, although it has

[187] Cf. Os. *puf* "where" < *k^wu-bhei*. Hitt. *kuapi* "where, when" < *k^wo-bhei.* Notice that this instrumental ending does not make these indefinite adverbs polarity sensitive elements.
[188] Clearly different from the one derived from de-instrumental indefinite adverbs.
[189] Dunkel (2014ii: 458). From the genitive singular of the indefinite stem *k^we-so*. Sihler (1995:189) proposes *k^wo-syo*. However, the pronominal stem *k^we-* is confirmed by the initial palatal in Av. *cahiia*.

been admitted that the genitive case can express such a value. On the other hand, translations usually use different random words for rendering που as a modal: *perchance*, *it may be*, *I suppose*, *perhaps*, *it seems*, etc [190]. Also in early Classical Greek (Herodotus and Thucydides) its use as a modal adverb is still oberved. Modal adverbs indicate a speaker's degree of commitment to the truth of a given proposition (Ernst 2009: 498). According to Giannakidou (2011: 1704) this commitment is partial. From this partial defecit, it derives its function as an evidentiality marker, especially in company with particle δή, as has been proposed by Van Rooy (2016:12-13) in his study of evidentiality in Plato. Following Ernst (2009: 513), regular negation does not provide modal adverbs with the suitable semantic context in order to appear. This incompatibility, however, does not block the greater flexibility that modal adverbs have with respect to other non-veridical operators, such as conditionals and interrogatives. Moreover, negative questions or negative counterfactuals can sometimes allow modal adverbs as well.

(71)
Od. 2, 164:
οὐ γὰρ Ὀδυσσεὺς δὴν ἀπάνευθε φίλων ὧν ἔσσεται, ἀλλά **που** ἤδη ἐγγὺς ἐὼν τοίσδεσσι φόνον καὶ κῆρα φυτεύει
"For Odysseus won't be away from his friends for a long time, but somewhere nearby he plans already the destruction and death of these"

(72)
a. Od. 1, 161
οὗ δή **που** λεύκ' ὀστέα πύθεται ὄμβρῳ κείμεν' ἐπ' ἠπείρου.
"Whose white bones probably rot in the rain as they lie upon the mainland".

b. Od. 4, 323
εἴ **που** ὄπωπας /ὀφθαλμοῖσι τεοῖσιν ἢ ἄλλου μῦθον ἄκουσας/ πλαζομένου.
"if perhaps you saw it with your own eyes or heard the report of another wanderer".

Contrary to what we find with indefinites composed by an instrumental suffix, που is not normally found in negative contexts. Notwithstanding, in my analysis of this form I have counted 11 cases with μή: εἰ μή που "unless" (x3), yes/no question ἦ μή που (x1), and μή που "lest, for fear that" (x7). There are two examples that I cannot account for, where the standard negation οὐκ and the scalar focus particle οὐδέ are

[190] The list does not stop there: it is also translated meaing *no doubt*, *indeed*, marking the opposite meaning, as the one intended to express possibility.

employed [191]. I would like to highlight the fact that the prohibitive μή, a polarity item in itself [192], not only plays an indispensable role in the attraction of negative polarity indefinites to its periphery, but also of those indefinites that in principle tend to avoid negatives, as it is the case of που that can appear in negative counterfactual sentences where the state or action described in the verbal form can only be conceived within a hypothetical world. This can be taken as a further argument in favour of considering μή a polarity sensitive element. As I will show in the next chapters, these polarity features displayed by μή can be better explained by its own inner morphology [193].

There are 161 occurrences of που in total. 56.52% of them occur in non-affective contexts functioning in the majority of cases as a modal adverb, with only a few instances where this pronominal adverb clearly operates as local indefinite, as in (73), where the semantics of the verb –notice the local preposition adhered to the verb– helps to assess this meaning. Its use within conditionals and interrogative is quite frequent too, amounting up to 56 times (34,78 %).

(73)
Od. 4, 639
ἀλλά **που** αὐτοῦ ἀγρῶν ἢ μήλοισι παρέμμεναι ἠὲ συβώτῃ.
"But that he was somewhere in his field with either the sheep or the swineherd".

The local value must be its original one, as attested by the interrogative ποῦ "where?". Thus, I consider the function of που as a modal adverb its primary function in Homer, which should have been developed at a very early stage [194]. In Classical Greek, however, the local value is more widely attested, which would eventually disfavour the use of που as a modal or as an evidentiality marker.

2.4.4 The instrumental -h_1 and the rise of strong negative polarity adverbs.

I now set out to describe three indefinite adverbs whose distribution is more restricted than the indefinites we saw in the last section. These indefinites have the common denominator of having the instrumental suffix -h_1 added to the pronominal interrrogative/indefinite stem. On the one hand, πως and πῃ, whose main function is that

[191] Il.17, 446 and Od. 21,317.
[192] Cf. Chatzopoulou (2019).
[193] Further aguments supporting this view is the fact that μή is the negation of conditionals, that it can appear in interrogative yes/no question without a negative nuance, as after *verba timendi*, and that it can operate as a negative conjunction in final clauses, yet another non-veridical context.
[194] Its local value relates as well to the values ascribed to πῃ, as we will see.

of an adverb of manner, seem to operate more widely, although they are most often attested within negative contexts. On the other, πω displays the behaviour of a strong negative polarity item, being allowed only in negative sentences.

2.4.4.1 *$k^{w}é$-h_1 > πῃ "anywhere; in anyway"

There are 21 instances of πῃ: 6 examples where πῃ works as an adverb of manner, especially in connection with the verb ἔστι "it is possible", as in (74). 16 cases have a clear local meaning, as in (75a). For this locative nuance, πῃ is frequently accompanied by localive prepositions or adverbs (75b). As can be observed in Table 18, this adverb has the tendency of appearing only within negative and interrogative contexts, with just one exception. In contrast to που, its local feature seems to be paramount. In Classical Greek, notwithstanding, πῃ is understood as a dative of manner developed from the instrumental, so it mainly operates as adverb of manner[195]. On the other hand, the dative of place is also widely attested in Greek at all stages, especially in poetry, so both values observed in this indefinite appear to be well-adapted to the dative-instrumental syncretism observed in the Greek dative case.

Therefore, πῃ and που follow opposite directions and seem to be in competition. Notably, they display in Classical Greek exactly opposite meanings to the ones shown in Homer, so it is plausible to say that their distribution and developments must be intertwined. Moreover, the adverb of manner function is already covered by πως, so that πῃ would more often convey a local meaning instead of its also possible modal values. As far as Homeric Greek is concerned, πῃ primarly attests a local function, which, later on, would have been taken over by που –that, in turn, already shows a local nuance in Homer.

(74)
Il. 6, 267
οὐδέ **πῇ** ἐστι κελαινεφέϊ Κρονίωνι αἵματι καὶ λύθρωι πεπαλαγμένον εὐχετάασθαι.
"Nor is it possible in any way to implore to the son of Cronos, covered in dark clouds, dirty with blood and filth"

(75)
a. Od. 5, 140
πέμψω δέ μιν οὔ **πῃ** ἐγώ γε·
"I won't send him anywhere".

[195] The iota subscript in this formation is analogically used after the Greek dative case.

b. Il. 24, 381
ἠέ **πῃ** ἐκπέμπεις κειμήλια πολλὰ καὶ ἐσθλά /ἄνδρας ἐς ἀλλοδαπούς
"are you sending anywhere these many and noble treasures, to men of foreign lands?".

Not attested in Homer is the Doric form πήποκα (=πώποτε), which is also restricted to negative and conditional contexts. See (76) for examples.

(76)
a. IG V 2, 213,5
*h*ᾶτ' οὐδὲς πέποκα τῶν νῦν.
"As no one from now (have) ever (done it)"

b.Theo, Idyllia, 32-3
αἴ τι Μενάλκας πήποχ' ὁ συρικτὰς προσφιλὲς ᾖσε μέλος,
"If anything the piper Menalcas ever sung was sweet…"

2.4.4.2 *k*^{w}*ó-h*$_1$*-s* > πως "in any way" [196]

πως shows a more restricted distribution, which can be explained by its own etymology. πως is attested 94 times. It appears in negative as well as in conditional contexts: 74.34 % (68 occurrences) in negative and 25.53% (24 occurrenes) in conditional contexts, as in (77). There are only two instances within non-affective contexts. As can be seen, πως is που's counterpart in negative contexts, although they could appear with coditionals as licit semantic contexts. πως's etymology is very straightforward: it derives from the strict polarity item πω and the adverbial suffix -*s* [197]. In contrast to πω, however, it can extend its appearance to conditional sentences.

(77)
a. Il. 2, 203
οὐ μέν **πως** πάντες βασιλεύσομεν ἐνθάδ' Ἀχαιοί·
"Not in any way all of us can be kings here, Acheans"

b. Il. 4, 17
εἰ δ' αὖ **πως** τόδε πᾶσι φίλον καὶ ἡδὺ γένοιτο,
"If again in any way this is wished for and sweet for everybody".

[196] Cf. Hit. (*natta*/ *UL*) *kuwāt-ka* "in some/any way". Notice that the instrumental ending -*t* does not make this indefinite adverb a 'strong' polarity sensitive element.
[197] It is probably the same suffix attested in adverbs of manner in -ως, e.g. καλώς "beautifully". Cf. Dunkel 2014i: (167-173).

2.4.4.3 *k^{w}ó-h_1 > πω: "yet; at all, in any way" [198]

πω is a 'strong' polarity item [199], since it can only be licensed by negation. I provide some examples in (78a-b). πω behaves in such a manner not only in Homeric Greek, but also in Classical Greek (Herod, Thuc., Dem., Xen., Eur., Plat., etc), where negation is the only element that can trigger the presence of this element with the total exclusion of other affective semantic contexts [200]. In Homer, there are 126 occurrences of this temporal adverb/negative strengthener form and in all of them it appears under the direct scope of negation.

(78)
a. Il. 1, 162 (temporal adverb)
οὐ γάρ **πω** τοίους ἴδον ἀνέρας, οὐδὲ ἴδωμαι.
"Such men I have not yet seen, nor will I see".

b. Il. 3, 306-7 (emphatic negation)
ἐπεὶ οὔ **πω** τλήσομ' ἐν ὀφθαλμοῖσιν ὁρᾶσθαι /μαρνάμενον φίλον υἱὸν ἀρηϊφίλωι Μενελάωι.
"Since in no way I can bear to see with my eyes my dear son doing battle with Menelaus".

If we turn to πώποτε –attested in Classical Greek onwards as a grammaticalized form[201]– things change. This form is not exclusively licensed by negation –although most of the time is–, but also by other semantic contexts such as interrogatives and conditionals, as in (79a-b). Notice that πω is the only form derived from the indefinite stem that does not actually have neither an indefinite value and nor an interrogative counterpart.

(79)
a. Isocr. *In Callimachum*, Section 56 line (interrogative).
Τίς δὲ **πώποτε** φανερώτερον ἐπεδείχθη τὰ ψευδῆ μαρτυρῶν;
"Who was ever yet more evidently proved (to have been) testifying lies?"

b. Aristoph. *Acharnenses*, 405. (conditional).
Εὐριπίδη, Εὐριπίδιον,/ ὑπάκουσον, εἴπερ **πώποτ'** ἀνθρώπων τινί·
"Euripides, little one, hear me out, if ever (did hear) to any man at all".

[198] Cf. Go. *ƕe* "how?, anyhow". Cf. Schwyzer (1950:163; 579), Beekes (2010:1264) and Chantraine (1968:921-22).
[199] Giannakidou & Zeijlstra (2017: 5).
[200] There are two exceptions: in both of them πω appears in an interrogative, marking a yes/no question Cf. Aristoph. *Ranae*, 565 and Thuc. 3, 45, 2, 1.
[201] Also cf. πήποκα.

2.5 Summary

In this chapter, I assessed the origins of the Greek negatorer and how, after the loss of the original marker **ne* and the transfer of the 'negativity' to the phasal adverb **(H)óyu-*, the negative marker was further reinforced by an indefinite-interrogative stem **k*^{w}*i-* plus an instrumental suffix *-h*$_{1}$ or, alternatively, by an instrumental **-t*: **ne-h*$_{2}$*oyu-k*^{w}*í-h*$_{1}$*/t* > Hom. οὐκί. Further arguments of the instrumental nature of the Greek negative marker are the nominals Gr. οὐτιδανός and Lat. *nēquitia*. The instrumental suffix, also allegedly found in Armenian, Indo-Iranian, and Italic, would have made the indefinite stem a polarity sensitive element capable of triggering negative attraction and, ultimately, negative absorption.

Next, after a concise description of Greek negation as being one of the central triggers of polarity, I have argued that Homeric Greek indeed shows a polarity distribution among indefinite pronouns (of the ontological category of person), which are mainly attested in negative, conditional, and interrogative contexts. Specific indefinites (existential) are indeed present, but their numbers only amount 20 % of the occurrences, opposed to the 80% of non-specific cases of τις –including ποτέρος and some instances of ἄλλος τις. Special *specific* indefinites such as the relative ὅς τε –and some instances of εἷς– would represent some inner Greek developments and not inherited formations.

I have also described how for the expression of free-choice Homeric Greek not only employs the indefinite τις, but also indefinite relatives such as ὅς τις and ὅς κε. I have argued that the latter should be included among the free-choice strategies and I have suggested that it might be connected to the free-choice indefinite relatives *(*H*)*yó-/k*^{w}*i -k*^{w}*o/k*^{w}*i -k*^{w}*e/k*^{w}*id*, as attested in Indo-Iranian and Italic.

I have also discussed about the real nature of τι and how it represents two distinct formations: one as quantifier and the other, the most prominent one, as an emphasizing particle. Both are mostly present in non-veridical contexts, expecially negation, but not exclusively.

Moreover, I have surveyed the uses of οὐδείς and how the scalar focus particle οὐδέ, which is invested in pseudo-negative concord constructions and appositive negation, plays an essential role in developing a new negative indefinite series. Additionally, I have argued in favour of considering the negative coordinate οὔτε a scalar focus particle.

With respect to indefinite adverbs, I have pointed out the neutral condition of ποτε concerning its appearance in negative as well as non-affective contexts (veridical). I have also discussed about the nature of the indefinite που as a modal adverb and its avoidance of standard negation. I have described how που can appear along with the prohibitive marker μή invested in the expression of negative counterfactuals, which can be taken as a further argument of its polarity sensitivity to non-veridical contexts. Finally, I have analyzed the indefinite adverbs πῃ, πως, and πω that distinctly display polarity in their syntactic distribution, further promoted by the inherited IE instrumental suffix -h_1 that activates them as polarity sensitive elements

CHAPTER 3: Negation, indefinites, and polarity in Indo-Iranian

3. Introduction

The four earliest attested Indo-Iranian languages are Vedic, Old Avestan, Young Avestan, and Old Persian. The latter two are more or less chronologically contemporary. The former two represent some of the earliest attestations not only of the Indo-Iranian group, but also of the entire IE family– with the only exception of Hittite and Greek. Despite their early composition, both of them have endured a great deal of oral and written traditions that in one way or the other might have remodelled the texts in the form they have been transmitted to us [202]. In Table 1, I provide an approximate chronology of early Indo-Iranian languages. Also cf. Windfuhr (2009: 9).

Table 1: Chronology of early Indo-Iranian languages

Indo-Iranian (2100-1800 BCE)	Indo-Aryan (1700-1500BCE)	Vedic Samhitas Rig-Vedic	Vedic Post-Samhita (1000-500 BCE)	Classical Sanskrit Pānini (500 BCE)	Middle Indic
	Iranian (1700-1500 BCE)	Old Avestan Gathas (1500-1000 BCE)	Young Avestan (1000-600 BCE) Old Persian	Early Middle Iranian Achaemenid Inscriptions (521-338 BCE)	Middle Persian Parthian

The Indo-Iranian affinity with early Greek is well known, as proved by the several isoglosses shared by these two families. Here, I intent to provide an up-to-date and complete description of how indefinites have developed in Indo-Iranian, their interaction with negatives, and whether they make use of strategies for the expression of the indefiniteness similar to those attested in early Greek, as seen in the previous chapter.

As regards my language sample, for the Indic group I have taken the mandalas II to IX of the *Rigveda* –the 'family books' plus the madalas VIII and IX–, which, according to the general view, are the earliest Vedic texts [203]. On the other hand, Old Iranian does not have of an ample corpus. Nevertheless, both Old and Young Avestan as well as Old

[202] This is especially relevant for both Old Avestan and Young Avestan.
[203] Cf. Cardona (2017: 310-12).

Persian display sufficient material to elaborate a comparative study with Old Indic. Thus, I have decided to work in each section with the data available from the four languages so that a sense of homogeneity is attained and a comparative analysis from within the Indo-Iranian group is also accomplished in the best possible way. As for Old Avestan, I have taken the *Gathas* (Y. 28-34, 43-51, and 53), poetry directly ascribed, according to tradition, to Zarathustra, the prophet of Ahura Mazda, and the *Yasna Haptanhaiti* (Y.35-41), liturgical texts ascribed to Zarthustra's disciples. For Young Avestan I have selected its three major works: the ritual texts of the *Yasnas* (Y 1-27, 54-72), the *Yašts*, a collection of twenty one hymns to individual deities, and the *Videvdad* (V. 1-22), a collection of texts with a list of do's and don'ts to achieve purification. Finally, for Old Persian, I have studied the Achaemenid Royal Inscriptions that are, in fact, our only source for this language [204].

As mentioned in the introduction, I will make constant reference to other stages of each language, concretely Middle Persian (for Old Persian) and Classical Sanskrit (for Vedic). For the former, this was particularly important given the fragmentary state of Old Persian. Thus, to a certain extent possible Middle Persian provides more insight about the synchronic state of Old Persian and helps to build up a diachronic view of this language. For Middle Persian and Classical Sanskrit, I have made use of different grammars and dictionnaries: mainly Skjærvø (2009b), Durkin-Meisterernsts (2012), Brunner (1977), and MacKenzie (1971) for Middle Persian; and Whitney (1896), Macdonell (1926), and Wackernagel (1930) for Classical Sanskrit.

I have made extensive use of TITUS database for both Vedic and Avestan texts. For the *Rigveda*, I have followed the edition by Aufrecht (1877), for Young Avestan the edition by Geldner (1896), for Old Avestan, the edition by Humbach (1991), and, finally, for Old Persian, the edition by Schmitt (2009). Regarding the translations of the texts I have mainly followed Humbach (1991) for Old Avestan, Lecoq (2017) for Young Avestan, Brereton & Jamison (2014) for the *Rigveda*, Schmitt (1991) for the Bīsotūn Inscription, and Schmitt (2009) for the rest of the Achaemenid Royal Inscriptions.

[204] For more information about the Avestan corpus, cf. Skjærvø (2009:43-48), Lecoq (2017: 43-58). For Old Persian, cf. Schmitt (2009) and Lecoq (1997:19-72).

3.1. Negation in Indo-Iranian

3.1.1 Negative forms

The four languages possess the three inherited types of negation: standard negation Ved. *ná*, Av. *nōiṯ*, OP. *naiy,* used for declarative sentences, as in (1), the prohibitive marker Ved. *mā́*, Av./OP *mā* (< PIE **meh₁*), and the morphological negation *a*(*n*)- [205]. The syntactic distribution of the first two negative markers depends on the semantic contexts in which they appear, as has been suggested by Chatzopoulou (2019:48), who observes that the Indo-Iranian prohibitive marker **mā*, just like the Greek and other IE prohibitives, is only attested in non-veridical contexts that elicit its presence as a polarity element.

(1)
a. RV.3, 3,1
dhármāṇi sanátā ***ná*** *dūduṣat.*
"He has not ever corrupted the foundations/laws"

b. Yt. 19, 50
nōiṯ *apaiia afrapatāi ząm paiti ahuraδātąm*.
"You, hereafter, will not fly hither towards the earth created by Ahuramazda".

c. DBI_p, §13, 52-53
taya adam ***naiy*** *Bardiya ami.*
"that I am not Smerdis"

Furthermore, Indo-Iranian languages are no exception to the renewal of negative markers, although each language follows a different path. On the one hand, Vedic, despite hanging on to the inherited IE standard negation, creates a form *nahí* [206] "for not; certainly not" (< **ne-ǵʰi*) [207]. See (2a-b) for examples.

(2)
a. RV. 5, 40, 9
nahí *anyé áśaknuvan*
"For no others were able"

b. RV. 7, 59, 4
nahí *va ūtíḥ pṛtanāsu márdhati yásmā* árādhvaṃ, *naraḥ.*
"Your help in battles certainly does not desert him to whom you have granted it, o men".

[205] E.g. Ved. *ananta* "endless", OAv. *asūra* "not strong", OP. *axšata*: "unbroken"
[206] Eventually, this negative maker would become the standard negation in Hindi.
[207] Cf. Gr. οὐχί.

In the *Rigveda* there is also the form *ná vaí* [208], which should not be confused with skrt. *ná vā* "or not" (= Lat. *nēve*), which is mainly attested on later stages of the language. Young Avestan does attest *nauua* "not; or not" that, in turn, should not be confused with the numeral *nauua* "nine". Rigvedic shows neither *ná ca* nor any other kind of negative coordinator with the only exception of occasional sandhi forms such as as *nó* (*ná* + *u*) and *nóta* (*ná uta*). Lastly, there is the negative indefinite *nákis*, which represents the only negative absorption form attested in the *Rigveda*. In chapter 2, we argued about its connection with other negative forms, such as Av. *naēcī-*, Lat. *nēquī-* or Gr. οὐκί, whose compound nature, **ne-k^{w}í-h$_1$*, would have also played a role in the renewal of negative markers in Greek and Armenian. I will come back to this issue in section 3.2.2.2.6.

The four languages attest the form **ná-i̯-d*. Although Old Iranian makes this strengthened negative marker its standard negation (Av. *nōiṯ* and OP *naiy*), Old Indic seldom utilizes it. When it does, Ved. *néd* can be either an emphatic negative "certainly not" or a negative final/consecutive conjunction "in order not to, lest" and it is only attested in the *Rigveda* and the *Atharvaveda*. See (3) for an example.

(3)
RV5, 79,9c
mā́ cirám tanuthāḥ ápaḥ, ***néd*** *tvā stenáṃ yáthā ripúṃ tápāti sū́ro arcíṣā súजāte áśvasūnṛte.*
"Don't keep dragging out your work over along time, lest the sun scorch you with his beam, as a swindling thief, oh well born lady, liberal with horses".

It is traditionally assumed that the reinforced particle IIr. **ná-i̯d* is the result of the union between IIr **ná* and the particle **íd,* accusative neuter singular of the anaphoric pronoun **í-* (Gotō 2013: 151; Mayrhofer 1996ii: 1). Jügel (2017: 559) states that there are disyllabic readings of this form in three passages of the Old Avestan texts (Y. 32.15, Y. 46.1, and Y. 47.4) and that this seems to point out to the compositional nature of the negative marker [209]. Contrary to this view, Kellens & Pirart (1990:173) and Dunkel (2014ii: 537) suggest that both **nai/*naid* are possible reconstructions for the Old Iranian standard negation. In the same line, de Vaan & Martínez (2014:105)

[208] *ná vaí* is an strengthened negation that consists in the standard negative maker plus the emphasizing particle *vaí* "indeed, truly".
[209] However, according to Macdonell (1916:239), the *Padapātha* –i.e. The recital of the Veda text pronouncing or showing each word separately as detached from the adjoining word– does not take *néd* as compound.

suggest the reinforced particle PIE *ne-$íh_1$ to be behind OAv. *nōiṯ* and *naē-dā*. I agree that both negatives must derive from the same *ne-$íh_1$. Cf. Lat. *nei*, *nī*, Goth. *nei*. Therefore, Avestan (*nōiṯ*) and Old Persian (*naiš*) standard negation might reflect the recharacterization of the negative *ne-$íh_1$* with an instrumental suffix -*t*. Therefore, IIr. *ai* in *$náiš$- develops in monosyllables in final position into OAv *ōi* and YAv. *ē* (but *yōi*, so *nōi*-). When *ai* is before a consonant, concretely before an enclitic (Skjærvø 2009a: 55), *ai* develops into *aē*. We find a similar morphological form in Av. *čōiṯ* "very" Ved. *ced* "if, when" from *k^we-$íh_1$-. Contrary to Gotō (2013: 151), who asserts that the neuter singular, nom.-acc. *i-*d* had become an accented particle (> *íd*) as in Ved. *kuvíd* (*kuv-*íd*) "whether really, is it…?", *céd* < *ca-*íd* "if", *néd* (< *na-*íd*) [210] "in order not to, lest", I believe that an accent shift is triggered by the instrumental ending -$íh_1$ > *ī́* observed in the IE negative particle *ne-$íh_1$. Crosslinguistically, instrumentals are usually in close connection with negative markers. We will see in the next chapter that the same instrumental suffix -*t* is present in Anatolian Hitt. *natta*, Pal. *nit*, and Lyd. *nid*, acting as reinforcement, and that some other instrumentals, -h_1, -b^hi and -*m* are also attested in extra-paradigmatic formations such as conditional conjunctions, interrogative particles, and negative markers, all these elements being non-veridical activators. The final dental stop leads to an intricate and complicated issue about its voiced or voiceless nature. Dunkel (2014 i: 174-7; ii: 185 fn 6) already states the difference between the *-*d* (for the accusative) and the * -*t* (for the instrumental) endings. As we know, Avestan *ṯ* is an allophone of /t/ found in final (-*ṯ*) as well as in pre-consonantal position (*ṯ*-*C*). In turn, Vedic final apical stops undertake external sandhi alternation (*t*/*d*) depending on the articulation of the following phoneme. Therefore, I take both Avestan and Vedic final dentals to be reflexes of an instrumental suffix -*t*. Thus, I believe that what is behind the second element (-*íd*) of the negative compound (i.e. Av. *nōiṯ* , OP *naiš* , and Ved. *néd*) is actually the instrumental suffix -$íh_1$ plus its recharacterization by means of the instrumental -*t*. Therefore, I consider that the real etymology of the Avestan/ Old Persian standard negative markers is *na-$íh_1$-*t* [211].

Av. *naē*- is utilized in negative absorption compounds such as the negative coordinate OAv./YAv. *naēdā*/*naēδa* (< P-Ir. *$ná$-*i*-*da*) and the negative indefinites

[210] *ned evá* (RV. 10,51, 4) = *nōiṯ aēuuā* (Y. 29, 6). Cf. *ná evá* "not at all" (de-instrumental reinforcement particle).

[211] See chapter 4 for more cases of instrumental reinforcements of non-veridical activators such as conditional conjunctions and negative markers.

OAv./YAv. *naēcīš*/*naēcīš*. Kellens & Pirart (1990: 136; 173; 274), following Kuipert (1987), assert that *naēdā* is the result of **nōiṯ =ā*, the negative marker plus a coordinating enclitic particle IIr. **u* "and" that usually appears after pronouns, interrogatives and negation [212]. According to this view, the secondary form *naē-* would have never existed. Another example of this kind of univerbation would be the negative indefinite **nai(d)ciš* > Av. *naēciš*. However, it seems to me that it is unnecessary to reconstruct an enclitic coordinate not attested in the Avestan corpus, when *nōiṯ* and *naē-* exhibit the same origin. There are also a few attestations of YAv. *māδa* in correlative distribution that would support the etymology of a prohibitive particle *mā* plus *dā*/*δā* [213]. In addition, Gr. οὐδέ shows similar morphosyntactic patterns, especially in its connection with enclitic particles and pronominals.

Finally, I would like to add a last negative formation, *naē-naēstārō* "not a detractor". It is attested in the *Gathas* (Y. 35, 2), in the *Yasnas* (Y. 68,20), and multiple times in the *Khorda Avesta* (A 1, 12; 1, 13; 2, 6; 3, 18; 3, 19)[214]. Here *naē-* operates as a proclitic morphological negation univerbated with a nominal [215]. I believe this is enough evidence weighing in favour of the validity of **ná-i̯* as an inherited negative marker that is the base for both the negative absorption negation that goes along with coordinates and indefinites, and the standard negation. See Table 2 for a summary of Indo-Iranian negative forms.

Table 2: Negative forms in Indo-Iranian

Indo-Iranian	Vedic	Old Avestan	Young Avestan	Old Persian
***ná**	***ná*** *náhi* *náki-*		*-nā*[1] *nauua*	
***ná-i̯-t**	*néd*	***nōiṯ***	***nōiṯ***	***nai̯***
***ná-i̯**		*naē-cī-* *naē-dā*	*naē-ci-* *naē-δa*	

[212] The sandhi formation Ved. *ná-u* > *nó* might resemble what Kuipert proposes for Avestan.
[213] Cf, Y.65,7, d-f; Yt. 10, 75, e; Vd. 2, 29, g: …*mā*…*mā*…*mā*…*māδa*. Kuipert, however, suggests that this form is similar to *naēδa* by analogy.
[214] *Khorda Avesta* or "Little Avesta" is a collection of texts used primarily by the laity for everyday devotions.
[215] Cf. Gr. οὐτιδανός, ή, όν.

3.1.2 Correlative negation

If we take a look at the IE distribution of the NEG-k^we collocation, we can see that it is broadly attested in most western Indo-European languages: Lat. *neque/nec*, Os. *nep*, Myc. *o-u-qe*, Gr. οὔτε, OIr. *nach*, Celtiber. *nekue*, Goth. *nih*, Lyd. *nik*. Hittite also presents *nekku* (attested in the oldest texts and New Hittite copies, although it does not perform a connective function) [216]. Moreover, there is a group of languages that do not show clear reflexes of the enclitic particle *-k^we: they are Balto-Slavic, Armenian, Albanian, and Tocharian AB. On the other hand, together with Anatolian, Greek, Phrygian, Italic, Germanic, Celtic, Venetic and Messapian, both Vedic and Avestan have the enclitic particle broadly attested.

In the Old Iranian group, however, Old Persian shows the gradual disuse of the enclitic connective coordination *-cā* in favour of the conjunction *utā*. This agrees with the fact that old conjunctions coming from simple particles are progressively replaced in historical languages by new prepositional conjunctions (*-cā >>> utā*). Cf. Lat. *-que >>> et*, Gr. -τε >>> καὶ. As mentioned by Klein (1988), the last attestations of the enclitic particle in the Royal Inscriptions have lost their syntactic disposition, as though the scribes in charge had forgotten the knowledge of the real value of particle *-cā* [217]. Old Persian has only 14 cases of *-cā* vs 131 of *utā*. Furthermore, Hinz & Koch (1987: 769) and Tavernier (2007: 36) consider El. *ir-da-ha-zí* (XPhe 4b: 34; XPhe 4c: 42, 45) to be parallel to OP. *ṛtā-ča* (XPhp § 5, 41, i; §6, 50, h; §6, 54, l), which would support the formulaic (archaic) nature of the phrase where the enclitic particle is being used.

Moreover, Rig-Vedic and Young Avestan attest *mā́ cā* and *māca* respectively. Nevertheless, there are no traces in early Indo-Iranian of the collocation **ná /nōiṯ-ca*. In Old Iranian, the morphological distribution of negative forms confirms the impossibility of the syntactic collocation: **ná-i̯d-k^we* [218]. In post-Samhitas Vedic texts there are instances of Ved. *ná ca*, but there is no systematic use of this structure. In turn, in Classical Sanskrit *ná ca* is broadly attested. In Avestan, Bartholomae (1904:1034) cites in his dictionary two instances of YAv. *naēca*, P23 and N11. However, both occurrences differ from more recent reconstructions of these passages. On the one hand,

[216] It works as a negative interrogative exclusively in rhetorical questions (cf. interrogative Lat. *ne*, OAv. *-nā*). Cf. Hoffner & Melchert (2008: 345-6).

[217] A certain development in the use of these two coordinates can be observed in Old Iranian: in the *Avesta*, there are more cases of *-cā* (223) than of *utā* (46). Concretely in Old Avestan, *utā* is attested only twice with an adverbial value "also".

[218] I would like to thank Jaime Martínez Porro (Freie Universität Berlin) for his help in the study of these passages.

in Pursišnīhā [219] (P, 22 (23)) YAv. *naē*[*δa*]*ca* is attested. On the other, in N11 [220] YAv. *naēmca* is attested. Despite this, in Kotwal & Kreyenbroek (1992) (I, 13.3), the reading for N11 is YAv. *naē*[*δa*]*ca*. These forms comprise the negative coordinate plus the coordinating enclitic particle. It looks almost as though the negative coordinator (*naēδa*) is being considered a standard negator along with the enclitic particle (*-ca*). Avestan resorts to the negative coordinate *naēdā*/*naēδa* for the polysyndetic negative coordination, as in (4a) and (4b). It should be noted that in both cases the variatio *nōiʒ…naēdā*/*naēδa* has a poetic use. In (4a) there is a Ringkomposition and in (4b) there is a Behagel law at work, which refers to the tendency observed in Indo-European languages to put shorter elements before long ones rather than after them [221].

(4)
a. Y 45, 2, a-e
aʒ frauuaxšiiā, *aŋhāuš mainiiū pauruiiē / yaiiå spaniiå*, *uitī mrauuaʒ yəm aŋgrəm /*
nōit *nā manå*, ***nōit*** *səŋghā* ***nōiʒ*** *xratauuō /* ***naēdā*** *varanā*, ***nōiʒ*** *uxδā* ***naēdā*** *šiiaoϑanā*
nōiʒ *daēnå,* ***nōiʒ*** *uruuąnō haciṇtē*
"Thus I will proclaim 'there are two fundamental spirits of life. The more life-giving one would say to the evil one: neither spirits nor proclamations, neither intelligences nor choice, neither words nor actions, neither religions nor souls would follow at all".

b. Y 11, 6, a-c
nōiʒ *ahmi nmāne zānāite āϑrauua* ***naēδa*** *raϑaēštå* ***naēδa*** *vāstriiō.fšuiiąs*
"In this house will be born neither a priest nor a charioteer nor a cattle-herding farmer'.

Notwithstanding, as shown in the examples above, the asyndetic repetition of the negative marker (*nōiʒ…nōiʒ*) is still the most productive strategy for expressing correlative negation, as in (5a-b). Avestan nominals, verbs, preverbs, preposition and negations are often repeated instead of being coordinated by conjunctions (Skjærvø 2009a: 147). Finally, it must be pointed out that the Avestan polysyndetic correlative negation displays a very fixed syntactic pattern: Av. *nōiʒ…naēdā /naēδa* (SN + NEG-COOR), also attested in other Indo-European languages such as Latin *nōn…neque* and Greek οὐ… οὐδέ. In Young Avestan there are also examples with an altered syntactic pattern: *naēδa… naēδa* [222] and *naēδa* acting as a single negative coordinator (i.e. not after the SN *nōiʒ*, but after an affirmative phrase, similarly to Gr. οὐδέ). We will see in

[219] *Pursišnīhā* is a collection of 59 questions and answers in Avestan and Middle Persian relating to matters of Zoroastrian religion.
[220] *Nirangestān*, later on named *Erbedestān*. See section 3.2.2.2.4.
[221] Cf. West (2011: 115).
[222] Yt. 10, 71, e. In Yt. 10, 19, d; in Vyt. 5, 35, f

the chapter on Elamite that this pattern will be followed in the Achaemenid Elamite collocation *a-ak in-ni* "nor", also used as a single negative coordinator "and not" [223].

(5)
a. Y 29, 5, b-c
nōiṯ *ərəžəjiiōi frajiiāitiš, /**nōiṯ** fṣuiieṇtē drəguuasū pairī*
"There is survival neither for the just one nor for the cattle around followers of the lie".

b. V 5, 3, a-g
*āaṯ mraoṯ ahurō.mazdå /**nōiṯ** spō.bərətō / **nōiṯ** vaiiō.bərətō. /**nōiṯ** vəhrkō.bərətō.*
nōiṯ *vātō.bərətō / **nōiṯ** maxṣi.bərətō /nasuš narəm **nōiṯ** āstriieiti.*
"Then, Ahuramazda says: a man is not to be held responsible of a corpse carried neither by dogs, nor by birds, nor by wolves, nor by winds, nor by flies".

In the Rigveda, the repetition of the negative marker is also used, as in (6). There are also a few instances where *nó* (*ná* + *u*) "and not" expresses negative coordination and it is present within correlative negation.

(6)
RV 2, 38, 9, a-c
ná *yásyéndro váruṇo **ná** mitró vratám aryamā́ **ná** mināṇti rudráḥ **ná**́rātayas*
"Whose commandment neither Indra nor Varuṇa, neither Mitra nor Aryaman, nor Rudra violate, nor do hostile powers."

Just as the rest of the Indo-Iranian languages, Old Persian uses the asyndetic repetition of the negative marker (OP *naiy...naiy*) to express correlative negation without the assistance of any enclitic coordinate, so that conjuncts can be posited symmetrically in the sentence. Old Persian neither possesses a specific negative coordinator nor does it use a 'positive' coordinator in connnection with a negator. Asyndetic parataxis is the usual mechanism of coordinating two elements negatively. As stated by Klein (1988: 411) for the Old Persian case, the repetition of the negative marker, which he describes as "nonexplicit conjunction", was not simply a stylistic resource, but an almost grammatical way to express negative coordination. In the Bīsotūn Inscription, there are two paragraphs with asyndetic correlative negation [224]. See (7a-b). Also Middle Persian attests both the asyndetic *nē...nē*, as well as the syndetic correlative negation *ud nē...ud nē* (=*iz*) "neither…nor" [225].

[223] Cf. Lat. *neque* and Gr. οὐδέ used as sole negator in a given sentence.
[224] In addition to these two, there is another example of correlative negation in DNb_p § 2, f-h, see (10).
[225] Cf. Nyberg (1974: 137); Skjærvø (2009b: 253).

(7)
a. DB_p 1, § 13, 48-49
Θātiy Dārayavauš xšayaθiya ***naiy*** *āha martiya* ***naiy*** *Pārsa* ***naiy*** *Māda* ***naiy*** *amāxam taumāya kašciy haya avam Gaumatam tayam magum xšaçam dītam caxriyā*.
"And king Darius says: there was no man, neither Persian nor Median nor anybody of my family that would take the reign from Gaumata the magician"

b. DB_p 4, § 62, 63-65
yaθā ***naiy*** *arika āham* ***naiy*** *draujana āham* ***naiy*** *zūrakara āham* ***naiy*** *adam* ***nai****maiy taumā upariy arštām upariyāyam* ***naiy*** *škaurim* ***naiy*** *tunuvatam zūra akunavam*.
"because I was neither disloyal nor a liar, nor I (am) an evil-doer, neither me nor my family, but I kept justice and I did not do any harm to neither the weak nor to the strong."

In Old Iranian, there seems to be a tendency of avoiding sandhi formations that include a negative marker. This is especially true in Avestan in relation to the prosodic nature of the enclitic *-ca* and the phonetic changes that it can cause. Hoffmann & Forssman (1996:113) assert that the enclitic particles can cause various phonetic changes. Skjærvø (2009:67) also stresses the fact that final consonant or vowels are regularly modified by following sounds. De Vaan (2003: 108, 117, 606) affirms that the enclitic particles *-ca* and *-ciṯ* can trigger a change of stress in a word and a consequent shortening of vowels [226] as well as other consonant changes [227]. Thus, I am under the impression that the principal reason why we do not find any kind of formation such as NEG-*cā* in Old Iranian is to prevent that the enclitic particle *-cā* might phonetically affect and morphologically modify the standard negation *naiy* /*nōiṯ*.

Finally I would like to provide some examples of two other strategies of correlative negation that I have already mentioned. I refer to Ved. *ná….nó* (8a) and YAv. *nauua….nauua* (8b). Ved. *nó* (*ná* + *u*) is attested in the *Rigveda* seven times: as a negative coordinator [228], and as a part of correlative negation [229].

(8)
a. RV 8, 33, 16
nahí *sáḥ táva* ***ná*** **+** ***u*** *mama śāstré anyásya ráṇyati*
"He finds pleasure neither in the instruction of you nor me, (but) of the other"

[226] The attraction of the stress to the syllable preceding the enclitic particle can also be seen in Lat. *-que*.
[227] A good example is the ending 3sg subjunctive *-āṯ: āṯca* > *āaṯ-ca*. This kind of phonetic change does not seem to apply to particle *-ciṯ*
[228] RV 4, 21, 9c; 6, 54,3c; 10, 86, 2c; 10, 145, 4b,
[229] RV. 1, 170, 1a; 8,33,16 a; 10, 145, 4b.

V. 3, 39
āaŧ. mraoŧ ahurō mazdå ***nauua*** *hē asti ciϑa /* ***nauua*** *hē asti āpərətiš.*
"Ahura Mazda answered: for that (deed), there is neither payment nor atonement."

3.1.3 Modality and placement of negation in Indo-Iranian

As discussed, Vedic has three negative particles: *mā́*, *ná*, and *a*(*n*)-. The first one is the prohibitive marker that mostly goes with the injunctive mood, but it can also go with the imperative [230]. *ná* is the standard syntactic negation and *a-* is the morphological negation [231]. The former can appear with the indicative, the subjunctive, the optative, and, also, the injunctive. Joseph (1991: 113-120) has suggested that the use of *ná* with injunctive might actually manifest the footprints of an lengthening alternation based on an early division between long and short vowel negative markers *nā́*/*ná* and *mā́*/*má*, which would have been used in the *Rigveda* due to metrical reasons. Early Vedic has an unmarked word order SOV, which in poetical texts such as the *Rigveda*, is totally at the mercy of expressive and stylistic purposes (Jamison 2004:695) [232]. In relation to the placement of the negative marker, it mostly follows the IE pattern we have seen so far: it may go preferably either at the beginning of a sentence or immediately before the verbal form [233].

Old and Young Avestan word order is usually labeled as free as well, since it does not depend on the placement of syntactic arguments, but on the topicalization or focus of the different elements of a given sentence. Nevertheless, as pointed out by Hale (2004:759), there are several restrictions to this word order such as the position of clitics. According to Jügel (2017: 559-560) negation usually goes before the word that is under its scope, which can be either at the beginning of a clause or after. Regarding the use of moods, on the one hand, *mā* goes with the injunctive (present/aorist) or the optative for the expression of negated commands and exhortations, although it can also go with the imperative. OAv. *nōiŧ* and YAv. *mā* can negate wishes and in both languages declarative sentences are usually negated by the standard negation *nōiŧ* along with the indicative, the subjunctive, or even the injunctive.

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[230] Cf. Hoffmann (1967), Gotō (2013: 90; 2017: 361), Willi (2018: 397-414).
[231] There are some instances where *ná* also works as morphological negation as in the word *na-mura* "not dying" (AV+). For more information about the morphological negation namely invested in the nominal inflection, cf. Wackernagel (1905:77-80) and Renou (1939:1-18).
[232] Also cf. Delbrück (1968:16-25) and Kulikov (2017:398-399).
[233] Cf. Speijer (1886: 315); Delbrück (1888: 541-5), and Renou (1946: 43-49). For more information about the placement of negation in Classical Sanskrit, Cf. Gonda (1951).

Finally, the unmarked order of elements in Old Persian is SOV, but, in general, it behaves quite freely. It seems to be greatly influenced by the topicalization and transposition of meaningful elements, as discussed by Hale (1988). The OP negative markers usually go immediately in front of the verbal form. Old Persian *naiy* is used for the expression of negative wishes together with the optative. Along with the subjunctive, *naiy* appears with relative, conditional, and consecutive subordinating clauses. *mā*, on the other hand, can go with injunctive, optative, imperative, and subjunctive within final clauses [234] . In (9 a-d) I provide examples of SN of the four Indo-Iranian languages studied.

(9)
a. RV 2, 18, 8
ná *me índreṇa sakhyám ví yoṣat.*
"He will not keep my friendship away from Indra"

b. Y. 43, 12
aṯ tu mōi ***nōiṯ*** *asruštā pairiiaoγžā*
"You go about declaring to me not with (without) refusal to listen"

c. Y. 10, 54
āaṯ mā ***nōiṯ*** *maśiiāka aoxtō.nāmana yasna yazəṇte.*
"Then, men do not venerate me with a sacrifice with my name pronounced"

d. DB 1, §13, 52
taya adam ***naiy*** *Bardiya ami.*
"that I am not Smerdis".

As we see, the placement and the use of moods are quite similar among the four languages. After this concise review of the generalities of negation, I move on to the indefinites in Indo-Iranian and their relationship with polarity.

3.2 Indefinites in Indo-Iranian

3.2.1 Interrogatives pronouns and the absence of specific indefinites

It is crosslinguistically common to see interrogatives and indefinites sharing the same etymology. Thus, as in the case of Greek, Indo-Iranian employs the same pronominal stem, IE $*k^{w}o/i$, for interrogative and indefinite pronouns. See (10 a-d) for examples of interrogative pronouns.

[234] Schmitt (2014: 207, 218).

(10)
a. RV. 3, 54,5
káḥ *addhā́ veda káḥ ihá prá vocat*
"Who knows for certain? Who will here proclaim it?"

b. RV. 8, 66,9
kéna *u nú kam śrómatena ná śuśruve janúṣaḥ pári vṛtrahā́*
"Indeed, by what fame has the Vṛtra-smasher not been famed from his birth?"
c. V. 2, 43
kō *aēšąm asti aŋhuca ratušca*
"Who are the lord and master here?"

d.Yt. 5, 94
kəm *iδa tē zaoϑrå bauuaiṇti.*
"What libations are here for you?"

Interrogatives are tonic and show *wh*-movement. On the other hand, Indo-Iranian marks the indefinite function out of the indefinite-interrogative stem through the addition of enclitic particles IIr. **ča*, **čid*, and **čaná*. I will show that each of these particles marks the pronominal stem with different indefinite functions. In Table 3 and 4, I provide a complete list of indefinites according to the different ontological categories.

Table 3: Indefinites in Vedic

Ontological Categories			
Person	*káś* "anyone"	*kátara* "either of the two"	*nákis* "no one"
Thing	*kát* "anything"	*kím/cid* "anything"	
Place	*kúha* "anywhere"	*kútra* "(to) anywhere"	*kutaś* "from anywhere "
Manner	*kathā́* "in any way"	*kathám* "in any way"	
Time	*kadā́* "any time"		
Amount	*káti* "several"		

Table 4: Indefinites in Avestan (and Old Persian)

Ontological Categories				
Person	*kə̄/kō* (*kas*) "anyone"	*ciš* "anyone"	*katara* "either of the two"	*naēcīš /naēciš* "no one"
Thing	*káṯ* "anything"	*ciṯ/cīm* (*ci*) "anything"		

Place	*kudā* “anywhere”	*kuua* “anywhere”	*kuθrā* “to anywhere”	*kudaṯ* “from anywhere ”
Manner	*kaθā/ kaθa* “in any way”			
Time	*kadā/ kaδa* “any time, ever”			
Amount	*caiti* “several”			

Contrary to Greek, the number of interrogative pronouns occurring in the texts is by far higher than the number of indefinites pronouns: in both Old and Young Avestan, there are 69 indefinites but 209 interrogatives. The same can be observed in Vedic: in the mandalas II-IX there are only 42 indefinites and 229 interrogatives. The scarcity of indefinite forms can be explained by the ritualistic/ liturgical nature of the texts, which often consist in invocations to different divinities. In Table 5, I provide all attested interrogative/indefinite formations.

Table 5: Interrogative/indefinite stem in Indo-Iranian

sg.	Vedic	Old Avestan	Young Avestan	Old Persian
N	*-kiṣ*, *káś*, *kā́*$_{f}$	*kā*, *ciš*, *kā*$_{f}$	*kō*, *ciš*, *kā*$_{f}$	*kā*, *ciš-*, *kaš-*
A	*kám*, *kā́m*$_{f}$	*kəm*, *cīm*, *kąm*	*kəm*, *cim*, *kąm*	
NA.n.	*-kim*	*kaṯ*, *cīṯ*	*kaṯ*, *cīṯ*	*-ciy*
I	*kéna*, *káyā*$_{f}$	*kā*	*kā*, *kana*	
D	*kásmai*, *kásyai*$_{f}$	*cahmāi*	*kahmāi*, *kaŋ́hāi*$_{f}$	
Abl	*kásmāt*		*kahmāṯ*	
G	*kásya*, *kásyās*$_{f}$	*kahiiā*, *cahiiā*	*kahe, kaŋ́he*, *kaŋ́hå*$_{f}$ *kahiiā*^{o}	
L	*kásmin*, *kásyām*$_{f}$		*kahmi*, *cahmi*	
pl.				
N	*ké*	*kōi*, *caiias*^{o}	*caiiō*	
A	*kā́ms*	*kāŋg*		
NA.n.	*kā́, kā́ni*	*cī*^{o}, *kā*	*kā*^{o}	
I	*kāiṣ*, *kā́su*$_{f}$		*kāiš*	
D	*kébhyas*	*kaḛ̄biiō*	*kaḛ̄biiō*	
G	*kéṣām*		*kaŋhąm*	

Another surprising trait of Indo-Iranian indefinites is the almost complete absence of *specific* indefinites. In Vedic there seems to be some instances where *káś cid*

performs such a function, as in (11) [235]. However, in Old Iranian there are no traces of this function. The only exception would be the Old Persian numeral one OP. *aiva* (< *(*H*)*oi̯-u̯o*-), as in (12). Cf. Gr. εἷς. Even though Schmitt (1991: 51 fn 36) is against considering the numeral as a real indefinite, I agree with Abolghassemi (2013:26) in taking OP. *aiva* as a proper indefinite pronoun already in Old Persian, as in (11b). This view is confirmed by the Middle Persian and Parthian data, although in the latter the use of the numeral one as an indefinite is much less common [236]. In Table 6 [237] I provide a diachronic view of indefinites in Middle Persian with their possible ancestors in Old Persian and their continuators in New Persian. Labels for the function that each indefinite carries out in their respective stage of the language are given. This table will be useful for the reference made to Middle Persian throughout this chapter.

(11)
a. RV. 9,101
ā́t īm ***ké cit*** *páśyamānāsaḥ ā́pyam vasurúcaḥ divyā́ḥ abhí anūṣata*
"Because of that, seeing for themselves a friendship with him who is radiant with goods, some heavenly beings roared to him."

b. DB_p I, §11, 36
pasāva ***aiva*** *martiya maguš āha Gaumāta nāma*
"Afterwards there was a/some man, a magus, Gaumāta by name."

The numeral 'one' (OP. *aiva*) > MP. -*ē*/*ēw* [-HD] (> NP. -*i*) is deeply connected to the expression of indefiniteness. It can function as an indefinite article "a, a certain" on its own (Skjærvø 2009: 205), and it is also a member of the compound forming the inanimate indefinite MP. *eč* "anything" < OP **aiva-ci*. We will see in the next sections how the numeral 'one' in one way or the other operates in negative formations.

[235] I have counted two other instances in the RigVeda where the indefinite could be interpreted as a *specific* indefinite: RV. 9, 110, 5b and RV. 8, 21,1b. All the other cases where an indefinite is found, it either performs a free-choice function or negative polarity function.
[236] Brunner (1977:43)
[237] FC = free-choice, PI = polarity item, EQ = existential quantifier, * = unattested or doubtful formation.

Table 6: Indefinites in Persian

Old Persian	Middle Persian	New Persian
kā	*kas* EQ "someone"	
kašci FC/PI "anyone"	*kas* (*-iz*) PI *…nē* "no one"	
**kas aiva*	*kas-ē*(*w*) EQ "something"	*kas-i* EQ/PI "something, anyone"
	**ēč kas*	*hič kas* PI "anyone"
	kas kas FC "each one"	
	har(w) kas FC "everyone"	*har kas* FC
cišci PI "anything"	**tis/čiš-e*(*w*)	*čiz-i* EQ/PI "anything,something"
	tis (*-iz*)*…nē* PI "nothing"	
	tis / *čiš* EQ "something"	
	**ēč tis* / *čiš* PI "anything"	
aiva "one, some"	*-ē*(*w*) "one, a"	*-i* EQ/PI (unstressed) "a, some"
**aiva-ci*	*ēč* PI "any"[238]	*hič* PI "any"
**aiva-cina*	*ēzin* PI "not one"	
**aiva-ka-cina*	*ēk-iz* (*y*)PI "not one"	
**kataraš-ci*	*kadār-iz* (*-ew*) FC "anyone, whoever"	
**katama-ci*	*kadām-iz-e*(*w*)FC "anyone, whoever"	*kodâm* "which?"
aniya-ci "even other, else"	*anīy/ anī-z* "else"	*niz* "even"

3.2.2 Non-specific indefinites

In this section I will provide a complete catalogue and full description of all cases of *non-specific* indefinites found in Old/Young Avestan, Old Persian, and Vedic. This section is divided into three subsections: the first one deals with the free-choice expression and the different strategies used by the Indo-Iranian languages to perform said function, especially through the use of the enclitic particles *čid* and *ča*. In the second subsection, I treat negative polarity indefinites and how particle *čana* is employed for marking indefinites as polarity items. Lastly, I deal with grammaticalized and univerbated negatives in Indo-Iranian and how some of them point to inherited strategies for the renewal of negative markers in Indo-European.

3.2.2.1 Free-choice

3.2.2.1.1 Particles **ča* and **čid* and their functions

Indeed, the real nature of these two enclitics has been subject of considerable debate among scholars since they display a great deal of multifunctionality in the IE languages. In the chapter 2, I discussed some non-connective functions carried out by τε and how the modal particle κε was really another reflex of **k*^{w}*e*. I also treated non-quantificational values of τι (< **k*^{w}*i*) and how this particle is used for emphasis along

[238] MPath. '*ywyz* < *ēvē-c*

with negative markers and non-veridical markers such as the conditional conjunction εἰ or the interrogative particle ἦ.

As mentioned, in Indo-Iranian the particle IIr. *-*čā* (Ved. *ca*, O/YAv. *cā*/*ca*, OP. *cā*) has some distinctive functions. The primary one is that of a coordinator "and". Vedic, Avestan, and Old Persian [239] show this coordinating function very clearly, even though the latter displays the gradual disappearance of the enclitic in favor of *utā*. In Avestan and Vedic a second function can be observed: -*ča* serves as an indefinite marker exclusively found in indefinite relative formations. Lastly, it must be pointed out that there seems to be traces of some sort of conditional value that must be derived from its inherited indefiniteness. This value gets a bit clearer when we take a look at the morphology of some conditional conjunctions such as Ved. *ced*, Ved $_{\text{PostRV}}$. *yat ca*, or Av. *yezi ca* "if" [240].

On the other hand, IIr. *-*čid* (Ved. *cid*, Av. -*ciṯ*, OP. -*ci*) is an emphatic particle meaning "even, also". Secondarily, it has the function of overtly marking free-choice indefinite pronouns, adverbs, and indefinite relatives [241]. It can be conjoined not only with pronouns (Av. *taēciṯ* "even they") and particles (e.g. Av. *aṯ-ciṯ* "even then"), but also with nominals (e.g. OP *vasnā-ci* "even with the will"; Ved. *devā́ś cid* "even the gods"). In Classical Sanskrit, it is only found after interrogative pronouns and adverbs to render them indefinites. This enclitic should not be confused with the wh-words Av. *ci-* and Ved. *cid*/*ki-* that are also derived from the same stem but have a quantificational status. As can be observed in Table 7, *čid* operates in the formation of (relative) indefinites derived from the interrogative and relative stems (see next sections), but its main function is still that of an emphasizing particle [242].

Table 7: IIr. *-*čid*

IIr. *-*čid*	Ved. -*cid*	Av. -*ciṯ*	OP. -*ci*
In indefinite formations	47	131	10
In other formations	385	276	15
Total number of occurrences	432	407	25

[239] For Vedic, cf. Klein (1985). For Old and Young Avestan, cf. Skjærvø (2009:149). For Old Persian, cf. Klein (1988).
[240] Cf. also Hitt. *takku*, *-kku* and and Gr. εἰ κε. See chapter 4, section 4.3.
[241] Delbrück (1888: 478).
[242] Notably, Delbrück (1888) asserts that *cid* expresses unexpected circumstances, which idea correlates with the non-veridical semantic contexts, where FC pronouns formed by *cid* are found. See next section.

3.2.2.1.2 Ved. *káś cid* /Av. *kasciṯ* /OP. *kasciy*, Av. *kataraciṯ*, Ved. *káti cid*, Ved. *sama-*

As we have seen, the expression of indefinites from the interrogative stem is accomplished by the use of enclitic particles. In this way, **čid* makes free-choice indefinite pronouns, when conjoined to the interrogative stem k^wo-. In Table 8, I provide the number of attestations for each language in my corpus.

Table 8: Occurrences of *k^wo-k^wid as a free-choice indefinite

	Vedic	Old Avestan	Young Avestan	Old Persian
**k*^{w}*o-k*^{w}*id*	*káś cid*	*kasciṯ*	*kasciṯ*	*kasci*
TOTAL	28	6	57	1

Thus, Ved. *káś cid* /Av. *kasciṯ* /OP. *kasci* have a meaning close to "anyone". However, in most Old Iranian occurrences, this inherited value has been modified into a distributive-universal meaning "each, everyone". This semantic change can also be observed in Lat. *quisque* (cf. section 4.1.1) and in Hitt. *kuiški* (cf. section 4.1.2 and 4.3). In (12 a-c), I provide examples of the inherited free-choice value "anyone" and in (13 a-c) I give some examples of the distributive value.

(12)
a. RV. 6,15,1c
véti ít diváḥ janúṣā ***kát cit*** *ā́ śúciḥ*
"He, ablaze right from his birth, pursues any (food) from heaven here".

b. Y 46, 8
tanuuəm ā yā īm hujiiātōiš pāiiāṯ, nōiṯ dužjiiātōiš, ***kācīṯ*** *mazdā duuaēšaŋhā.*
"So that take the body aside from agreeable life, not from hard life, with any hostility"

c. V. 14, 3
vohu.kərətōiš vā haδānaēpataiiå vā ***kąmciṯ*** *vā hubaoiδitəmanąm uruuaranąm… nisirinuiiāṯ.*
"He would bring Vohukereti, Hadha-naepata, or any of the sweet-scented plants"

(13)
a. Y. 35, 8
kahmāicīṯ *hātąm jījišąm vahištąm ādā ubōibiiā ahubiiā.*
"I have told each one of the beings that the wish of life is the best, for the two existences"

b. V. 9, 13
āaṯ hā druxš auuāstriieite ***kąmciṯ*** *vā vacaŋhąm.*
"The Druj becomes weaker and weaker at every one of those words"

c. DSe_p §5, 37
gāϑavā ***kašciy*** *astiy dātam*
"Each one is put in his place".

The data in the four languages is quite consistent. Almost 99% of all occurrences of this type of indefinite are not within negative contexts. We will see in section 3.2.2.2 that there are a few exceptions to this pattern. The avoidance of negation, as we have seen, is directly related with the core nature of free-choice indefinites. Notably, Vedic presents instances where the indefinite is attested in conditional clauses, which can also activate the presence of free-choice items. See some examples in (14).

(14)
RV. 2, 27, 14b
ádite mítra váruṇa utá mṛḷa yát vaḥ vayám cakṛmá ***kát cit*** *ā́gaḥ*
"O Aditi, Mitra, and Varuṇa, have mercy if we have committed any offense against you".

RV. 4, 16, 17b
tigmā́ yát antár aśániḥ pátāti ***kásmin cit*** *śūra muhuké jánānām*
"If a sharp missile will fly in an instant amid anyone of the peoples, o champion"

There are other indefinites that behave in the same way. YAv. *kataraciṯ* [243] is attested up to five times. See (15) for an example. It derives from **k^wo-tero-k^wid* [244] and has as cognate Os. *pútereí pid* [245]. **k^wo-tero* [246] is also found in Vedic, *kátara caná* and Homeric Greek, πότερος [247], although, in the latter two languages they act as negative polarity items. Other IE languages have some functional cognates in **k^wo-tero-k^we*: Go. *ƕaþaruh*, OIce, *hvárge* [248], and Lat. *uterque* "each of two, either". Similarly to **k^wid*, the particle **k^we* is also used in free-choice indefinites by other IE families such as Italic or Germanic.

[243] MP *kadār-iz-ē*(*w*) "whoever". Nyrberg (1974): *katārci* + *hē* [opt.] "whoever it may be".
[244] Cf. Mayrhofer (1992: 293-4).
[245] Untermann (1996: 625).
[246] Wackernagel (1930 iii: 562-3). Also cf. Ved. *ka-tamá-* "who?". MP *kadām-iz-ē*(*w*).
[247] Also cf. Lat. *neuter*.
[248] OIce. *hvárge* "neither of the two" derives from *k^wo-tero-k^wene.*

(15)
Yt.14, 43
yaŋ spāδa haŋjasåŋte spitama zaraϑuštra raštəm rasma ***katarasciŋ****.*
"When the armies come together, o Spitama Zarathustra, each an ordered battle-line,…"

Concerning Vedic, we also have Ved. *káti cid* that derives from **k^wo-ti*, also attested in the interrogatives Lat. *quot*, YAv. *caiti*, OP *čaiti* "how many?" [249]. See (16) for an example.

(16)
RV. 9, 72, 1
út vā́cam īráyati hinváte matī́ puruṣṭutásya ***káti cit*** *paripríyaḥ.*
"When he raises his voice, the circle of friends of the one praised by many –however many they are, speed him on with their thought".

Finally, there is the indefinite *sama-* [250], whose primary function is the expression of free-choice, as in (17). It derives from * *sm-H-o-* and has other reflexes such as Gr. ἁμο- (οὐδαμῶς. Herod. +) and Go. *sums* "someone, anyone" [251]. We will see in section 3.2.2.2.5 how this indefinite is also attested as a polarity element.

(17)
a. RV. 6, 53, 8
táyā ***samasya*** *hṛdayam ā́ rikha kikirā́ kṛṇu*
"with it shred the heart of anyone, make it shrapnel"

b. RV. 5, 24, 3
sá no bodhi śrudhī́ hávam uruṣyá naḥ aghāyatáḥ ***samasmāt***
"Give us freedom from anyone who wishes evil".

3.2.2.1.3 Ved. *yád cid*, YAv. *yaŋ ciŋ* , OP. *yaci*

In Indo-Iranian we also find reflexes of IE **(H)yó* [252]*- k^wi-* "whatever" > Ved. *yád cit*, YAv. *yaŋciŋ,* OP *yaci*. Contrary to its Greek cognate ὅς τις, its use as an indefinite relative is not completely consistent. Even though there are clear examples of this relative indefinite being used as a free-choice item, in Vedic, however, this form is employed as a conditional or concessive conjunction "even though, even if". Cf. Vitti

[249] Cf. Mayrhofer (1992: 294) for the proto-form IIr.**k^we-ti*.
[250] Wackernagel (1930 iii: 577).
[251] Cf. Ablauting variants: **sem-* >Arm. *mi*, Gr. εἷς (<) "one", Toch A. *saṃ* "someone, anyone". **som-H-o* > OP *hama*, YAv. *hama*, Gr. ὁμός "one and the same" Ved. *samá-* "similar".**sm̥* - Ved. *sa-kr̥t,* OP. *ha-karam*, Av. *ha-kərəŋ*, Gr. ἅ-παξ "once", Lat. *sem*-per "always", *sim-ilis* "similar". The connection among all these different ablauting variants is unclear.
[252] From the demonstrative stem **h_1i-*. Cf. Beekes (2010: 1117) and Mayrhofer (1996: 390).

(2008) and Lühr (1978). In Old Iranian in most cases YAv. *yaŧ ciŧ* has an indefinite temporal nuance "whenever". Both values are derived from the use of the relative neuter singular as a temporal/conditional conjunction IIr. **yad* "when, if" and the emphasizing particle **čid* "even". Vitti (2008: 396) advocates for the late appearance of Ved. *yad cid dhí* as a concessive conjunction "even though", as suggested by its polymorphic nature. I believe that this view is further supported by the fact that the original-inherited value of *yát cid* as a free-choice indefinite relative might have changed into a subordination marker that happens to express similar semantics [253]. OP *yaci* is no exception to this conjunctional use, as shown by the Elamite version of DNb_e 8, where the Elamite conditional conjunction is attested *an-ka₄…an-ka₄* = (19c) OP. *yaci…yaci*. In (18) I provide examples of IIr. **yad-cid* as a free-choice indefinite relative. In (19) I give some examples of it as conditional/temporal conjunction.

(18)
a. RV 4,12,4
yát cit dhí *te puruṣatrā́ yaviṣṭha ácittibhiḥ cakṛmá kát cit ā́gaḥ*
"Whatever we have done to you, youngest one, in our human nature or through our heedless ways—whatever offense—"

b. Y10, 17
vīspe haoma. upastaomi ***/yaŧciŧ*** *barṣnuṣuua gairinąm* ***/yaŧciŧ*** *jąfnuṣuua raonąm/* ***yaēciŧ*** *ązahu dərətå̊ŋhō*.
"I celebrate all *haomas*, whichever is the top of the mountains, whichever is in the banks of the rivers, whoever is retained in captivity".

c. DNb_p § 3, 13,D
yaci=*maį pr̥tanayā bavati.*
"Whatever is in fight with me"

(19)
a. RV 4, 32, 13
yát cit hí *śáśvatām ási índra sā́dhāraṇaḥ tvám tám tvā vayám havāmahe.*
"Even though you are the support common to each and every one, Indra, we summon you to us".

b.Yt. 12,9
yaŧciŧ *ahi raṣnuuō aṣāum upa karṣuuarə yaŧ arəzahi*
"Whenever you are, oh ašavan Rašnu, within the karšvar of *arəzahi*, we invoke you".

[253] I will discuss in section 4.3 the similarities between conditionals and free-choice indefinites, on the one hand, and conditional and temporal clauses, on the other. All of them have in common that they express x-alternatives or an x number of possible worlds where the action or state of affairs is attained.

c. DNb §8, 35-36
yaci *vaiṇ̂āmi hamiçiyam,* ***yaci*** *naiṇ̂ vaiṇ̂āmi*
"If I see an enemy, or if I do not see it"

If we take a look at Table 9, we can see that there are no many occurrences of this form –in Young Avestan the same sentence found in Yt. 12, 9 is repeated several times– and all of them represent the neuter singular of the relative pronoun. Thus, the data from Vedic and Young Avestan shows that most of the time this indefinite relative behaves as subordinating conjunction and not as a free-choice relative. Thus, contrary to Greek, Indo-Iranian displays only remnants of this inherited indefinite relative due to the multifunctionality of its components, i.e. IIr. **yad* "that; when, if" + *čid* "even".

Table 9: IIr.occurrences of *(*H*)*yó-k*^{w}*id*

IE	Vedic	Young Avestan	Old Persian
*(*H*)*yo-k*^{w}*id*	*yad cid hí/yá- cid*	*yaṯciṯ*	*yaci*
Total	7/1	45	5

3.2.2.1.4 Ved. *yá- ka/kim-ca*, Av. *ya-ka/ci-ca/ciṯ*, OP *kā haya*, *kasci haya*

The indefinite relative PIE *(*H*)*yó*-(…)*k^{w}*o*/*k^{w}*i-k^{w}*e*/*k^{w}*id* [254] "whoever, whatever" is well attested in Indo-Iranian. We already saw in the chapter 2 how Gr. ὅς τις κε might derive from the same proto-form. Scholars traditionally connect IIr. *či-ča* / *ka-ča* with PIE **k^{w}is-k^{w}e* /*k^{w}os-k^{w}e* and its IE reflexes Lat. *quisque* "everyone, each", Hitt. *kuiški* "some; any; every" and Go. *ƕazuh* "each, everyone" [255]. The first two forms are derived from the interrogative-relative-indefinite stem used in both Italic and Anatolian. As regards the Gothic reflex, Klein (1992:50) suggests that all *-uh* formations come from **-u-k^{w}e*, although this proto-form would not be present in the Go. *nih*. "if not" [256]. Thus, at first glance, there seems to be no direct relationship between IIr. *či-ča* / *ka-ča* and its alleged IE cognates. Moreover, both Indo-Iranian formations are only found in connection with the relative pronoun IIr. *yá-* (<**(H)yó-*) and there is no evidence whatsoever of an independent use outside relative clauses. Vedic attests *yá-...ká- ca /yá-kíṃ ca* [257] up to eight times between books II and IX. See (20a-b) for examples. In this indefinite relative, the indefinite pronoun operates as a domain-widening particle, as

[254] Dunkel (2014ii: 472).
[255] See Lehmann (1986: 198). Klein (1992:50) suggests the proto-form **u-k^{w}e*, although this would not be found in the Go. *nih* "if not".
[256] Cf. also OCS *ašte ne* "if not".
[257] Cf. Macdonell (1910: 229), Wackernagel (1930iii: 570-2), Delbrück (1888:569-70), Delbrück (1900iii: 339), and Klein (1985: 269-276).

discussed for τις in the Greek indefinite relative ὅς τις. In Classical Sanskrit this construction is frequently used, including particle combinations not found in Vedic: *yá-kas caná*/ *yá- kaśca*/ *yá- kaścid*. As we know, Vedic employs *káś cid* [258] as a non-relative (nominal) free-choice "anyone" and *káś caná* as a negative polarity item "(not) anyone" [259]. So, the list of early Vedic indefinites based on the interrogative-indefinite stem should not include *káś ca* as an independent non-relative indefinite, since its attestations point otherwise.

(20)
a. RV 6, 46, 8
yád vā tṛkṣaú maghavan druhyā́v ā́ jáne ***yát*** *pūraú* ***kác ca*** *vṛṣṇyam/ asmábhyaṃ tád rirīhi sáṃ nṛ́ṣāhye.*
"Or what bullish power is in Tṛkṣi and in the Druhyu people, or whatever is in the Pūru, o bounteous one, grant that to us fully…"

b. RV7, 89. 5
yát kíṃ ce*dáṃ varuṇa daívye jáne 'bhidrohám manuṣyā́ś cárāmasi*
"Whatever this deceit that we humans practice against the divine race, o Varuṇa,…"

The same structure can be observed in Old Iranian: OAv. *yə̄-...cišcā* (21a) and YAv. *yō-…cica*/ *yō- cišca* (21b) [260]. Old and Young Avestan also present the form *yə̄-/yō-...ká-ciṯ*, as in (22a). In the *Rigveda*, there are also examples of the latter, as in (22b), but not in the oldest books.

(21)
a. Y43, 16
aṯ ahurā huuō mainiiūm zaraϑuštrō vərəṇtē mazdā, ***yastē cišcā*** *spəništō.*
"O Ahura, this Zarathustra chooses whichever spirit (is) thy most prosperous one, o Wise One".

b. V 3, 41
spaiieite vīspa tā šiiaoϑna ***yā cica*** *vərəziieiti.*
"It takes away whichever sin that may be sinned".

(22)
a. Y 44, 16 = V8, 20.
aṯ hōi vohū səraošō jaṇtū manaŋhā mazdā ahmāi ***yahmāi*** *vašī* ***kahmāicīṯ****.*
"Let obedience come to him through good thought, o Wise One, to him, to whomever you wish".

[258] As it is the case of OAv. *kascīṯ* and YAv. *kasciṯ* (Y12, 7) that function as non-relative free-choice forms. OP *kasciy*, on the other hand, is a negative polarity item.
[259] See section 3.2.2.2.2.
[260] Cf.Bartholomae (1904: 574), Kellens & Pirart (1990: 289-290), Skjærvø (2017:526).

b. RV. 1, 94, 9
*vadhaíḥ duḥśáṃsān ápa dūḍhyàḥ jahi / dūré vā **yé** ánti vā **ké cit** atríṇaḥ.*
"With fatal weapons strike away those of evil recitation and of evil insight, and whatever rapacious ones are in the distance or nearby"

Old Persian might show the same indefinite relative –with the indefinite stem *$k^w o$-* > OP *kā* –, which is attested in connection with the personal pronoun *tuvam* [261], and the relative pronoun OP *haya*, as in (23). It has been traditionally assumed by scholars such as Chantraine (1968:921), Frisk (1960: 632), Beekes (2010: 1264), Dunkel (2014ii: 464), and Schmitt (2014:198) that OP *kā* is a cognate of Gr. πω < * *k^wó-h_1* [262]. I will argue in this section that this assumption is unsustainable. A first counterargument is the fact that this so-called instrumental indefinite pronoun has no connection whatsoever with negation or any similar semantic context, as I argued in last chapter in favour of considering the instrumental suffix a polarity sensitive trigger.

Although Schmitt (1991: 69 fn 37) realizes that the nominative *xšāyaθiya* "king" should be included within the relative clause headed by *haya* "who", I take *kā…haya* plus the subjunctive mood to represent an indefinite relative clause "anyone who = whoever", with *tuvam* as the antecedent of the relative indefinite and with a change of the Indo-Iranian word order due to language contact. One important piece of evidence in support of the reality of this indefinite relative comes from the Achaemenid Elamite parallel text. XPh_e 38-9 attests a relative *ak-ka$_4$-ia*, instead of the standard relative pronoun *ak-ka$_4$* "who". Paper (1955: 98 fn 21) suggests that this form may possibly represent the *-ya* of OP *kā haya*. Therefore, it seems that the Iranian scribe writing this inscription understood that the indefinite stem in the OP version was being accompanied by the relative pronoun with which formed a morphological entity and, thus, he marked this connection between the indefinite and the relative in the Elamite text. See chapter 5, section 5.4. for more information.

The order of elements is confirmed by the Middle Persian indefinite relative MP *ēč kē* "whoever" (indefinite + relative) [263]. MP. *ēč kē*, literally "anyone who", might be a reflex of OP. **aiva-ci kahya*, with reanalysis of the Old Iranian genitive indefinite as a relative pronoun (Durkin-Meisterernst 2012: 214-15). Then, OP *kā* should be considered, in fact, the nominative singular of an indefinite determiner without the

[261] Cf. Lee Johnson (1917: 225-6).
[262] Also cf. Lat. *quō*.
[263] Also *če* "what" (< **čahya*). We also find *harw če* "everything that" with the same word order. Cf. also MP '*yg* < **i-ka* = *i-kamak* "whoever".

addition of any generalizing particle, as in the case of MP *kas* "someone". Moreover, all attestations of this pronominal form seem to point to an idiomatic phrase. The five instances in the Bīsotūn inscription and the one in XPh_p 43 are in connection with the personal pronoun *tuvam* "you". The long *ā* can be explained as one more case of lengthening of the final vowel in Old Persian. In addition to this, we might have a parallel structure in (23c), where *kašci haya* "anyone who, whoever" goes along with a perfect optative verbal form [264]. Cf. IIr.**ya- kas-cid* and **ya-kas-ca* ≈ OP. *kasci haya* and *kā haya.* Notably, Akkadian shows similar indefinite relative constructions made of an indefinite pronoun (derived from the interrogative stem by reduplication) and a relative pronoun Akk. *mamman ša* (NBabyl. *mamnu ša*) "anyone who, whoever" (Huehnergard 1997: 123-24). The same structure is found in Imperial Aramaic *mn z*/*dy* "one who, whoever" (Muraoka & Porten 1998: 172) and in Hebrew *mi/mh ʔshd* "he who, whoever" (Joüon & Muraoka ii 1991: 536-7) where the interrogative stem is followed by a relative pronoun. Thus, I believe that the structure found in Old and Middle Persian, which does not agree with the Indo-Iranian word pattern, might be better explained by Semitic influence [265]. Such a language might be Aramaic, one the most important administrative languages in the Achaemenid period. In the same way, via Middle Iranian, Armenian would have created the relative pronoun *o*(*v*) < **k*^{w}*o*-(*H*)*yós* (interrogative-indefinite + relative) (cf. Kölligan 2006) after Middle Iranian word order. Finally, the fact that particle *-cā* has almost disappeared in Old Persian explains its absence in the relative indefinite: OP *kā…haya.* See the chapter on Elamite (section 5.4) for further evidence in favour of the real status of *kā…haya* and *kašci haya* as free-choice indefinite relatives.

(23)
a. DB_p 4, § 55, 37
ϑātiy Dārayavauš xšāyaϑiya: *tuvam* ***kā*** *xšāyaϑiya* ***haya*** *aparam āhi.*
"Proclaims Darius, the king: you, whichever king you are hereafter"

[264] Notice that for examples like the ones in (23), the Elamite parallel version has the relative pronoun *ak-ka*$_4$. In the case of (23c), *ak-ka*$_4$ actually operates as a true indefinite (= *ak-ka*$_4$*-ri*).
[265] The *Rigveda* also attests the form *káya-* (x3) "every, any" (not to be confused with *kayā*, intr.sg. fem. "in which manner?"), always in the genitive case and along with the particle *cid*, which, according to Wackernagel (1930iii: 563) is made of the indefinite-interrogative plus the relative stem. Notably, it has a distributive/universal value "every" as well as a clear (nominal) FC value "any". See RV 1, 129, 5; 1, 27, 8; 8, 25, 15. Also cf. Mayrhofer (1992:307) and Gotō (2013:74). This would imply that the word order attested for the Old Persian indefinite relative is inherited and not due to language contact. Given the scarcity of examples of this form in the *Rigveda* and the fact that it is not attested in the 'family books', I am skeptic about its being an Indo-Iranian inherited structure.

b. DB_p 4, § 56, 41
tuvam ***kā haya*** *aparam imām dipim patiparsāhy*
"You, whoever reads this inscription hereafter"

c. DB_p 1, § 13, 48-50
naį āha martiya [naį Pārsa naį Māda naį amāxam taumāyā] ***kašci haya*** *avam Gaumātam tyam magum xšaçam dītam caxriyā*
"There was no man, [neither Persian nor Median nor of my family] anyone who/whoever might have despoiled that Gaumata the magus of the kingship".

Finally, other IE families display similars patterns as Indo-Iranian with the relative *k^wi-* and the same indefinite base *k^wo-k^we*, ***k^wi-k^wo-k^we*** [266]. This is the case of Lat. *quicumque* and Sab. *pisi pumpe* [267]. In Table 10, I summarize the attestations of indefinite relatives in Indo-Iranian and their cognates in Greek and the Italic families.

Table 10: *(*H*)*yó*-(…) *k^wo/k^wi- k^we/k^wid* in Indo-Iranian, Greek, and Italic

PIE	Vedic	Old Avestan	Young Avestan	Old Persian	Greek	Italic [268]
*(*H*)*yo*-(…)	*yá-...ká- ca*	*ya…ci-cā*	*ya…ci-ca*	*kā haya*	?ὅς τις κε	Lat. *qui-cumque*
k^wo/k^wi- k^we/k^wid	(5)	(3)	(4)	(4)		Osc. *pisi-pumpe*
	yá- kíṃ ca	*ya-...ká-ciţ*	*ya-...ká-ciţ*	*kašci haya*		
	(3)	(2)	(2)	(1)		

3.2.2.1.5 Correlative-relative constructions: **(H)yó-…., // so-/to-*

I would like to make a brief mention of yet another crosslinguistically common strategy among IE languages for the expression of free-choice which is also present in Indo-Iranian. Old Indic also expresses the free-choice meaning through relative-correlative constructions containing a demonstrative in the matrix clause, which is co-referential to the relative, as in (24 a-b) [269]. Cf. Klein (1985:12ff; 2004-5; 2012: 196-7), who discusses at length the sequence *yá-...sá/tá-* [270].

[266] Cf. Ernout & Meillet (2001: 556), de Vaan (2008: 152; 508), Weiss (2009: 353), Fortson IV (2017:842).
[267] Untermann (2000: 601-2).
[268] *k^wi- (…) k^wo-k^we*
[269] For Vedic, see also Delbrück (1900iii: 299-310; 1888: 557-9), Hettrich (1988), Klein (2004-5), Vitti (2008), Hock (2015: 9-13), Probert (2015: 43-47), and Kulikov (2017:400-1).
[270] Klein (1985ii: 12) mentions that within this type of correlative-relative constructions the encltic *-u* is frequently added to the demonstrative stem as an extra maker of coreferentiality. See Gothic below.

(24)
a. RV 1, 41, 1
yáṃ *rákṣanti prácetaso váruṇo mitró aryamā́ nú cit <u>sá</u> dabhyate jánaḥ*
"Whomever wise Varuna, Mita and Aryaman protect, never is that person injured".

b. RV 3, 53, 21
yáḥ *naḥ dvéṣṭi ádharaḥ <u>sáḥ</u> padīṣṭa,* ***yám*** *u dviṣmáḥ <u>tám</u> u prāṇáḥ jahātu*
"Whoever hate us, let that one fall low, whomever we hate let breath leave that one".

Avestan shows the same relative-correlative structures, as in (25a). Old Persian as well as Middle Persian place the relative pronoun in clause-initial position for expressing free-choice values: OP. *haya*/ MP. *kē*…..subj. [271], as in (25b).

(25)
a. Y 31, 20
yə̄ *āiiaṯ aṣauuanəm diuuamnəm <u>hōi</u> aparəm xṣiiō.*
"Whoever may approach the truthful one, splendour will be his (reward)"

b. DNa $_{p}$ §3, 20-21
taya*-šām hacā-ma aθahaya* ***ava*** *akunava.*
"Whatever was announced to them by me, that they did"

As we see, the use of relative-correlative sentences for expressing free-choice is wide-spread in IE languages, Greek being among them. Cf. Probert (2015). In this section I sought to show that there are other strategies besides indefinite pronominals to express semantic values such as free-choice. Now, I return to one last free-choice strategy attested in Indo-Iranian.

3.2.2.1.5 Reduplication of the pronominal stem

Crosslinguistically, the use of reduplication to express free-chioice indefinite pronouns is fairly common (Haspelmath, 1997: 23-24; 179-182). Several early Indo-European languages show this strategy of marking free-choice indefinites: Hitt. *kuiš kuiš*, HLuw. *kwis kwis* [272], Lat. *quisquis*, Osc. *pis pis*, etc. It has also been suggested that reduplication might be the source of Toch.B *ksa* [273] and OIr. *cach* [274].

Even though early Greek does not display this strategy, examples of

[271] Cf. Reichelt (1903:574-5); Brunner (1977:82-89), Skjærvø (2009:234; 256) and Durkin-Meisterernst (2012:215).
[272] Payne (2010: 27).
[273] Pinault (2008:125; 546).
[274] Matasović (2009: 173-4).

reduplication of the indefinite stem are pervasive in Indo-Iranian [275]. Old Indic not only makes use of the reduplication of the interrogative-indefinite stem, but also recurs to the reduplication of the relative *yá-* [276], as it is also the case for Old Phrygian, *yos yos* [277]. In the *Rigveda* we find only one case of a reduplication of the pronominal stem *ka-* accompanied by the particle *cid*, as in (26). In my corpus, there are no examples of reduplication of the relative pronoun [278], although some examples of this type of reduplication will be treated in the section dealing with indefinite adverbs [279].

(26)
RV 8, 102, 20
yát agne ***kā́ni kā́ni cit*** / *ā́ te dā́rūṇi dadhmási* / *tā́ juṣasva yaviṣṭhya*
"When, Agni, we set <u>every</u> piece of wood whatsoever in you, enjoy them, youngest one".

If we turn to Old Iranian, Avestan shows several examples of reduplication and most of them are accompanied by the particle *ciţ* placed after the second element. I count up to six examples of reduplication in Young Avestan. In (27) I provide a few examples [280]. Notice that most of examples in Avestan have a distributive value.

(27)
Yt. 5, 101
kaŋhe kaŋhe *apaγžāire nmānəm hištaite huδātəm.*
"For each floodway stands a house well-built"

Y 61, 4
hamistaiiaēca nižbərətaiiaēca ***kahe kahiiācīţ*** *druuatąm.*
"to knock down and extirpate each one /everyone of the liars"

As regards OP *cišci*, although etymologically represents a reduplicated form * *či-či*, this indefinite actually works as a polarity item (see in 3.2.2.2.3). Middle Iranian, on the contrary, shows clear examples of reduplication, as can be observed in MP *kas kas* "everyone, each" [281] and Parth. *kēž kēz* "each one" [282].

[275] Sometimes along with particles, especially **čid*.
[276] Wackernagel (1930 iii: 574-575), Renou (1952: 384 fn.1).
[277] Ligorio & Lubotsky (2018: 1827).
[278] In post-*Rigveda* texts, there are examples of *yá- yá-*.
[279] I have not mentioned the reduplication of the numeral 'one' with a universal-distributive value, *ékas ékas* "every single one" (RV 3, 29, 5; 5, 52, 17, etc), which strictly speaking does not convey a free-choice reading.
[280] Also Yt. 11, 5 (x2) *kahmi kahmiciţ* and Yt. 5, 102 *kəm kəmciţ*.
[281] Brunner (1977: 91).
[282] Cf. Skjærvø (2009:207). Other Middle Iranian languages such as Khotanese and Sogdian show this pattern.

As we have seen, free-choice in Indo-Iranian is expressed through a great deal of strategies. I have left out the use in Vedic of the indefinite plus the demonstrative poronoun, *ká-* + *ta/sa-*, given that it is not attested in the *Rigveda* [283].

3.2.2.2 Polarity items in early Indo-Iranian

3.2.2.2.1 **čana* as a negative polarity marker

IIr. **čana* "(not) even" derives from IE **k^{w}e-ne*, which is formed after the interrogative-indefinite stem plus the instrumental suffix *-ne*, often found in the Indo-Iranian pronominal flexion (Ved. *kéna*? "with whom?", Av. *a-*/*i-*/*ima-* "this" > *ana* "with this"; cf Ved. *aná́* "therefore" [284]). It seems that the confusion regarding its compound nature can be traced back to Vedic exegetic literature that took this particle to be composed by the enclitic *-ca* "and" and the standard negative marker *ná* "not" (Klein 1985: 292). This can be seen in the Sāmaveda where this form has been transmitted segmented into *ca* and *ná*. Bopp (1845: 561) is of this same view and he has been followed by Delbrück (1893: 514), Renou (1952: 381), etc. Wackernagel (1930iii: 499) is the first one to suggest that this particle of pronominal origin actually reflects the interrogative-indefinite stem **k^{w}e-* plus an instrumental suffix. In the same way, Mayrhofer (1992: 528) and Gotō (2013; 2017: 356-7) [285] confirmed the instrumental character of IIr. **čana* [286]. Following Lühr (1976), Gotō (2013:73-4) puts it in connection with its Germanic cognates OE *hwergen*, OHG *wer-gi*(*-n*) and suggests that there might have been an alternation of instrumental interrogative stem formations: *k^{w}ó-ne*/*k^{w}é-ne* : *k^{w}ó-*h$_1$/*k^{w}í-h$_1$*.

In this line, an alternative view for the etymology of this particle is the substitution by the 'pronominal' instrumental suffix *-(*e*)*na* –of an orginal -(*e*)*h$_1$* suffix– that would have been generalized into the nominal inflection (Weiss 2009: 201). This substitution has parallels in the Vedic nominal inflection (Gotō 2013: 9). A plausible reason for this substitution might have been the disambiguation between a form **čā* < **k^{w}e-h$_1$* [287] and the enclitic coordination and generalizing particle **-ča* "and". Gotō

[283] See Wackernagel (1930 iii: 554).

[284] The alternation among languages of instrumental suffixes ('nominal' *-h$_1$* and 'pronominal' *-ne*) in both the nominal and pronominal inflections can be clearly seen in in Indo-Iranian: PIE **to-h$_1$* > IIr. *tá́* > Av. *tā*, Ved. *téna*. For an explanation of this *variatio* of instrumental suffixes, cf. Gotō (2013: 71).

[285] However, Gotō (2013:71,151) still suggests that Ved.*caná*/ Av. *-cina* might be interpreted as **k^{w}e* + **né* (negation) or, at least, partly crossed with *ná* "not".

[286] Cf. Klein (1985: 285).

[287]Cf. The instrumental relative **k^{w}eh$_1$* suggested by Szemerényi (1985).

(2013: 148) enumerates a list of words that might display an old instrumental ending *k^we-h_1 used in adverbial suffixes: Ved. *uccā́* "upward, above" or Ved. *paścā́* "afterwards, behind" [288]. Parallels of the instrumental suffix -h_1 added to a pronominal stem for the formation of indefinite adverbs and particles can be seen in Greek, as shown in chapter 2. Notwithstanding, be as it may, the instrumental nature of the ending of this particle can be taken as certain [289]. In Table 11, an overview of Indo-Iranian and other IE reflexes of *k^wene can be found. Notice that the instrumental suffix PIE -*ne* (> IIr. -*nā*) makes the pronominal stem k^we- a strong negative polarity item, i.e. it can only appear grammatically in negative contexts.

Table 11: IE *k^wo- / *(H)oi̯- k^wene*

PIE	Avestan	Old Persian	Vedic	Germanic
k^wene	O/YAv. *-cina*	OP *cinā*	Ved. *caná*	Go. *-hun*
k^wo-k^wene			Ved. *káś caná*	Go. *ƕas-hun*
*(H)oi̯-u̯o-k^wene *(H)oi̯-ko- k^wene *(H)oi̯-no-k^wene*	YAv. *ōiim-cina*	?*aiva-cina	Ved. *ékaś caná*	Go. *ainshun* [290] Swed. *ingen*

Ved. *caná* is an emphasizing particle [291] that mainly goes with negation *mā́* /*ná*, as in (28a-b). Sometimes it can operate as a strengthener of negation "not at all". Another primary function of this particle is marking interrogative stem formations as negative polarity items "not any", as in (28c). In later Vedic (AV+), this particle is attested in indefinite relatives *yá- ká-caná*, although it seems that this use could have been prompted by its nature as an emphasizing particle, just like Ved. -*cid* "even", and its resemblance with Ved. -*ca*, mostly employed in this kind of structures. In Classical Sanskrit, *caná* is exclusively deployed after negation.

(28)

[288] The latter example would have a nice parallel in Lat. *post-quā-m* "afterwards".
[289] For yet another alternative view of the etymology of *IIr.*čana*, see Dunkel (2014ii: 481-485).
[290] Cf. Goth. *ainamma* "to one", dative of instrumental origin, and Goth. *áinummē-hun* "to anyone" (Wright 1910 [1966]: 37).
[291] It should be considered as a negative counterpart of Ved. *cid* "even", mostly attested in positive sentences.

a. RV 4, 31, 9a
nahí *ṣmā te śatáṃ* ***caná*** *rā́dho váranta āmúraḥ*
"For not even a hundred obstacles can block your generosity"

b. RV. 3, 36, 4
nā́**ha** *vivyāca pṛthivī́* ***cana****ínaṃ*
"The earth does not encompass him at all"

c. RV. 6, 47, 1
ná káś caná *sahata āhavéṣu*
"Not anyone (= no one) will overcome him at the challenges".

However, Ved. *caná* does not always go with negation. In the oldest books of the *Rigveda* (II-IX), nearly 40% (22 out of 55) of its attestations appear without a preceding negator [292], as in (29a-b). In most of these cases, it still conveys a negative meaning "not even" [293]. On the contrary, in Classical Sanskrit *caná* is only attested in negative sentences, as it might have been standardized as a negatve context-only particle. Delbrück (1888:544) considers that its independent negative value can be explained by its presence mainly in negative clauses, although he does not provide further details as to how this semantic phenomenon is accomplished.

(29)
a. RV. 2, 24, 12
ā́paḥ ***caná*** *prá minanti vratám vām*
"Not even the waters alter your commandment"

b. RV. 3, 30,1
índra tvád ā́ ***káś caná*** *hí praketáḥ*
"For, Indra, there is no sign from you"

c. RV. 2, 16, 2
yásmāt índrāt bṛhatáḥ ***kím caná*** *īm ṛté*
"Lofty Indra, without whom (there is) no order"

Wackernagel (1930iii: 562) explains this phenomenon as another instance of a negative cycle as put forward by Jespersen. Jäger (2010: 815-16) also detects a cyclic development of the semantics acquired by *caná*, although she mistakenly understands this change on the opposite direction, from a negative into a weak negative polarity giving for granted the presence of negation in its etymology **k*^{w}*e* "and" + *ne* "not". Another example of a negative cycle might also be the case of Ved. *nu cid*, as can be

[292] Cf. Klein (1985: 285-292) for a lengthy discussion of its occurrences.
[293] There are two instances where *caná* does not have a negative nuance. Cf. RV. 1, 55, 5 and RV. 6, 26,6.

seen in (30a-b). It appears that this formation acquired a negative meaning by its contact with negation, as in (30c). Although there are few examples of the collocation Ved. *nu cid* after negation, *nu* alone can operate as a negative strengthener "ever, at all" after negatives, as it is also the case for other languages such as Greek where we have the exact same collocation οὔ νύ (τι). In Vedic, we have also *ná*(*hī́*) *nu* "not at all" attested several times [294].

(30)
RV. 7, 93, 6
nú cit *hí parimamnā́the asmā́n.*
"For you never have disregarded us"

RV. 4, 16, 20
nú cit *yáthā naḥ sakhyā́ viyóṣat.*
"So that he will never keep us far away from his companionship".

RV. 4, 6, 7
ná *mātárāpitárā* ***nū́ cid*** *iṣṭaú*
"Nor have his mother and father ever (been obstructed) in their longing"

On the other hand, Old Iranian barely attests IIr.**čana* > OIr. *cina* [295] > O/YAv. *nōiṯ*/*mā*….-*cinā* [296] and OP *naį*….*cinā* [297]. In Old Iranian, *cina* is an emphasizing particle, but it does not perform the function of a negative polarity marker for rendering indefinites out of interrogatives. There are only two clear exceptions: Vr. [298] 22,2, where it interacts with an indefinite adverb (*mā*…*kaϑa-cina* "not in any way"), and Herb.16.1, where it appears along with the numeral 'one' (*nōiṯōim. cinəm vācim* "not even one word") [299]. It is attested twice in Old Avestan and eight times in Young Avestan. Compared to Old Indic, its use can be considered as residual, since in some instances in Young Avestan [300] its role as an emphasizing particle is not totally clear. See (31) for examples.

[294] Cf. Dunkel (2014 ii: 584-5).
[295] De Vaan (2003: 471).
[296] Bartholomae (1904: 595), Jackson (1982: 116-7), West (2011: 101), Kellens & Pirart (1990: 167,242), Skjærvø (2003:174, 2007: 899, 2009:152, 2017:526), Jügel (2017: 559).
[297] Skjærvø (2016: 130) suggests that c-i-[n-a], as proposed by Schmitt (2009), might represent instead OP. *citā*. Therefore it would be *naį…citā* "not anymore".
[298] *Vispered* texts: a miscellany of ritual texts, mostly invocations.
[299] *Hērbedestān* texts –which deal with the proper procedure in matters relating to religious studies– have usually been regarded as part of the *Nērangestān*–which in turn deals with matters of ritual– given that it precedes the latter in the manuscripts. Cf. Kotwat & Kreyenbroek (1992). Notice that in this case, it is a form **cina*-.
[300] Yt. 11, 5 (x2), V. 18, 34, Yt. 10, 84.

(31)
a. Y 30, 6
aiiå ***nōiṯ*** *ərəš vīšiiātā daēuuā-**cinā***
"The Daēvas do not discriminate well, not even between these two spiritis".

b. Y. 31,10
nōiṯ *mazdā auuāstriiō dauuąs-**cinā** humərətōiš baxštā.*
"The non-forager, O Wise One, does not enjoy a good reputation, not even shouting"

c. P. [301] 22 (23)
*naē[δa]ca pascaēta h[o] nā ahmaṯ haca gātaoṯ isaēta frašūtōi[š]**nōiṯ** apa.šūtōi[š] ϑraiiąm-**cina** gāmanąm.*
"And thereafter that man would not be able to move forward nor backwards, (not) even three steps".

d. DSe_p §5, 37
*yaθā aniya aniyam **naiṯ** jaity **cinā***
"So that one may not hit the other at all"

3.2.2.2.2 Ved. *káś caná* and *kátara caná*

As mentioned, Vedic makes use of *caná* to overtly mark negative polarity items, as in (32). In the *Rigveda* (II-IX) I have counted eleven occurrences of this particle along with the interrogative-indefinite stems *káś* (x10) and *kátara* (x1). Notice that there are no instances where an interrogative-stem preceded by negation is not followed by particle *caná*, working as a polarity marker. In such cases where *caná* is not preceded by a negative marker, it behaves as a negative emphasizing particle with the meaning of "not even". In Classical Sanskrit, *caná* is also attested within indefintie relative constructions **yá- káś- caná* "whoever" without a negative meaning. For its part, Old Iranian indefinite pronouns do not show any examples of this use, which can be explained by the almost complete disappearance of *-cina*.

(32)
a. RV 6, 69, 8
ná *párā jigye **kataráś cana**ínoḥ*
"Neither one of these two has been conquered"

b. RV 6, 47, 3
ná *yắbhiyo bʰúvanam **kát caná** āré*
"from which no word is at a distance".

3.2.2.2.3 Ved. *káś cid* and OP. *kasci*, *cišci*

[301] *Pursišnihā* texts: a collection of questions and answers regarding religious matters.

Even though Vedic uses Ved. *káś cid* almost without exception for expressing the free-choice value, there are a few instances where this indefinite goes after a negative marker. There is one case after the standard negation *ná* and two examples after the prohibitive marker *mā́*. The sentence in (33a) might be a case of redeployment of this indefinite as a polarity item, a phenomenon that we can clearly see in Old Persian. To the contrary, in Classical Sanskirt, *káś cid* behaves as a multifunctional indefinite performing the functions of negative polarity item, specific indefinite, etc. The two examples within prohibitions can be understood as entailing negatives within non-veridical/non-episodic semantic contexts, since the action described by the prohibitive sentence does not actually take place in the real world or there is at least a chance that the action is not successfully accomplished. On the other hand, Avestan follows a strict pattern in its use of free-choice indefinites *kasciṯ*, which are not licensed in any kind of negative sentence. However, Old Persian has deployed its inherited free-choice indefinite as a negative polarity indefinite, see (33c). Middle Persian displays the same behaviour as the indefinite MP *kas*-(*iz*) "anyone" (< OP *kas-ci*) that most of the time goes with SN *nē.* The same thing happens with OP *cišciy* that behaves as a negative polarity item, although it was an inherited free-choice indefinite formed by reduplication. Parallels can be also found in Middle Persian where MP *tis* (*čiš*)…*nē* "anything" works as a polarity item too [302].

(33)
a. RV 7, 103, 8 (non-episodic)
āvíḥ bhavanti gúhyāḥ ***ná ké cit***
"Not anyone of them are hidden below"

b. RV 2, 42, 1 (RV. 10, 15, 6) RV 3, 45, 1
mā́ *tvā* ***kā́ cit*** *abhibhā́ víśvyā vidat*
"Don't let any evil eye find you"

c. DB 1, §13, 53-4,
kašciy naiy *adaršnauš* ***cišciy*** *θastanaiy*
"Not anyone dared say anyting"

3.2.2.2.4 Ved. *ékas caná*, YAv. *aēuua-cina*, OP **aiva-cina*.

[302] To be fair, there are examples where MP *tis* (*čiš*) actually preserves its free-choice interpretation as it is also the case for MP *kadār-iz* "whichever of the two" and MP *kadām-iz* "whoever". Cf. Ved. *kátara-*/*katama-*. See Durkin-Meisterernst (2012:216).

In this section, I provide examples of the use of the numeral 'one' alongside the particle IIr. **čana*. Its use is quite erratic in both Vedic and Avestan, so it is difficult to discern whether this structure can be considered an inherited strategy. Vedic counts with one example of the numeral *ékaś* "one" (< *(*H*)*oi̯-ko-*) along with particle *caná*, functioning as an indefinite proper. See (34a).

In Young Avestan we have to turn to the *Hērbedestān* texts [303] to see similar collocations: YAv. *aēuuō-cina* (< *(*H*)*oi̯-u̯o-*), as in (34b). On the other hand, the passage in (34c) entails some further consideration. Kotwal & Keyenbroek (1992: 40) present *auuācinō.daitiia-*, which they translate as "less than legal", as the correct reading. According to Bartholomae (1904: 169-170), this word is connected with Ved. *ávāñc-* "which is lower than" and with Skrt. *avācīna-* "which is down". He concludes that this word must derive from **auuacina* "inferior". For (34c), the TD manuscripts give the reading *aēuuācina.daitiia* "not (even) one (thing) according to the law" that points to the fact that there must have been some sort of crossover between *aēuuā.cina.daitiia* (*aēuuā* "with one" < PIE **(H)oi̯-u̯o-*) and *auuācinō.daitiia* (*auuā* "with that" < PIE **h₂eu̯o-*), in both cases the first element of the compound in the instrumental case [304]. Due to the resemblance between the first elements of the compound (*auuā* vs *aēuuā*), it is assumed that both elements are followed by the emphasizing particle *-cina* along with a previous negation. Indeed, *nōiṯ aēuuā-* < *NEG + *(H)oi̯-u̯o-h₁* (= OAV. Y. 29, 6) seems to reflect an instrumental suffix acting as a polarity trigger which is further recharacterized by the polarity particle *-cina*. Therefore, in Avestan, there seems to be some sort of interference between both terms (*nōiṯ*) *auua.cinō* "inferior, less" and *nōiṯ aēuuō.cina* "not (even) one" [305]. In the former, *-cinō* is considered to be derived from particle IIr. **čana*, whereas, in the latter, the enclitic partic *-cina* is actually present. Moreover, there is also a term *auuacinō.mazah-*

[303] As professor Skjærvø has warned me, *Hērbedestān* manuscripts have not been fortunate in their textual transmission. Thus, I have proceeded with extreme caution in my analysis of these passages.

[304] The second element of the compound, *dāitiia-*"legal" is a de-instrumental nominal formation derived from *dāta-* "law, (one's) right", which in turn is derived from *dā-* "to give, bestow, offer" and its past participle *dāta* "established, set; created". Therefore, *dāitiia-* (< *daHi-t-iiā-*) would be formed by two instrumentals: an instrumental suffix *-t*, as in *dāit-* "with the law", as shown by Widmer (2005) for *huzāmi-* "good birth" > *huzāmit-* "with a good birth > well-born". In this way, *dāit-* becomes "according to the law" by morphological hypostasis. The second instrumental suffix is *-i̯a-h₁* (instr.sg.) is part of the ending, as in the proper noun *Dāitiiā*, name of the river flowing through *Airiiana Vaējah*, the mythical homeland of the Iranians. Thus, the adjective *dāitiiā-* would come to mean something closer to "being with what is according to the law" > "legal".

[305] Lat. *nōn* < **ne-* (*H*)*oi̯-no-h₁-m.*

"what is less in value" that also goes along with negation. Overall, this example demonstrates that Avestan *-cina* must always be present along with negation, even in those cases where *-cina* is allegedly present in nominal compounds.

Moreover, Middle Persian might show a form MP *ēzin* "not even one", suggested by Nyberg (1974: 38) and probably derived from OP **aiva-cina*. This collocation would have a nice parallel in OP **aiva-ci*, which is the ancestor of MP *ēč* "any", a negative polarity item [306]. Moreover, notice that Gothic also attests said form: Go. *ainshun* "anything" < **(H)oi̯-no- kʷe-ne.* However, the MP parallel formation in the *Hērbedestān* is *ēk-iz(y)*, which might be derived from OP **aiva-ka-* [307], a form related to Ved. *ékaś* "one" (< **(H)oi̯-ko-*).

(34)
a. RV7, 104,3
yáthā ***nā́****taḥ púnar* ***ékaś canó****dáyat.*
"so that no one at all will come up from there again"

b. Herb. 16.1
nōiṯ̰ōim. cinəm *vācim*.
"not (even) one word/phrase"

c. Herb. 5,5
(*nōiṯ̰*) *auuācino.*daītīm vīnāθaiiāṯ̰.
"It does (not) detract, even with that less than legal".

3.2.2.2.5 Polarity indefinites without particles: Ved. *sama-* and Ved. *káś-/ci-*, O/YAv. *ka/ci-*, OAv. *aēuuā*

After a thorough review of the uses of the interrogative-indefinite stem along with particles, I set out to describe the cases where the particle **čana* is completely absent. In Vedic, besides the evident fact that all examples without particle go with the prohibitive particle Ved. *mā́*, there is another common denominator, that is, all instances are marked for the genitive case [308] and they all seem to display negative attraction. In (35) I give examples where the interrogative-indefinite stem is used along with prohibitive *mā́.*

[306] I am grateful for the comments and invaluable aid of Milad Abedi for the analysis of this passage and, indirectly, to professor Skjærvø for pointing out the soundness of this structure.
[307] Cf. Bernard (2019: 41-55). This kind of double extension added to the actual root of the numeral 'one' is also seen in Goth. *ainaha* < *(*H*)oi̯-no-ko-.
[308] I wonder whether this represents an idiomatic phrase: "a nobody".

(35)
RV. 4, 3, 13
mā́ kásya *yakṣáṃ sádam íd dhuró gā*
"Don't ever chase after (us, as) the specter of anybody, a crooked man"

RV. 5, 70,4
mā́ kásya *adbhutakratū yakṣám bhujemā tanū́bhiḥ*
"O you of wonderful intelligence, may we not in our own persons endure the specter of anybody"

RV 7, 94, 8
mā́ kásya *no áraruṣo dhūrtíḥ práṇaṅ mártiyasya*
"Don't let damage of anybody, of an evil mortal, reach us".

In (36), there is an example of the indefinite *sama-* functioning as a negative polarity item [309].

(36)
RV. 8, 75, 9
mā́ *naḥ* ***samasya*** *dūḍʰíyaḥ páridveṣaso aṃhatíḥ ūrmír ná nā́vam ā́ vadʰīt.*
"Let not the coercion of anyone of evil intention and encompassing hatred crash down on us, like a wave on a boat".

Finally, in (37) I provide an example where the Ved. *cid* is being used not as an indefinite but as an emphasizing particle "at all" (cf. Gotō 2013:73)[310]. Notice that in this passage the indefinite stem *ci-* preserves the palatalized velar, which, for the Vedic indefinite-interrogative has been reanalyzed and changed back into a voiceless velar stop *k* (cf. Ved. *ki-*), probably aferter the pronominal Ved. *ka-*. Thefore, this phonetic feature points to the fact the it is actually the emphasizing particle (*cid*) and not the interrogative stem what we are dealing with here.

(37)
RV. 8, 1,1
mā́ cid *anyád ví śaṃsata*
"Don't praise anything else!"

For its part, Old Avestan (38a) and Young Avestan (38b-c) show the same collocation. In total, there are five instances of this structure in Avestan [311].

[309] There are two more examples with a negative: RV. 8, 75, 9 with *mā́* and RV. 6, 27, 3 with *nahí*.
[310] Cf. last chapter, section 2.2.3.3, for the same function being performed by particle Gr. τι.
[311] Also Yt. 10, 122 and Yt. 17,54.

(38)
a. Y. 31, 18
mā ciš *aŧ vā drəguuatō mąϑrąscā gūštā sāsnåscā.*
"Let no one of the deceitful one listen to your formulas and teachings".

b. Y.9,21
mā ciš *pauruuō būiδiiaēta nō.*
"Let nobody notice us beforehand"

c. V, 3, 14
mā ciš *barō aēuuō yaŧ iristəm.*
"Don't let any man alone by himself carry a corpse".

Young Avestan not only shows the *ci*/*ca*- stem (39a), but also the *ka*- indefinite stem (39b) alongside standard negation[312]. The latter use of the interrogative stem as an indefinite without the use of particles is very rare indeed, attesting only three occurrences.

(39)
a. Yt. 13, 3
yahmāi ***nōiŧ cahmāi*** *naēmanąm karana pairi.vaēnōiϑe.*
"They could not be seen by anyone"

b.Yt. 10, 62 (x 2)
yō ***nōiŧ kahmāi*** *miϑrō.drująm maśiiānąm aojō daδāiti nōiŧ zāuuarə.*
"The one who does not give to anyone of the men deceiving Mithra neither force nor power".

Finally, I found one instance in Old Avestan of the numeral 'one' actually being used as a negative polarity indefinite, as in (40). This example along with the instances with particle -*cina* demonstrates how IE languages and, concretely, Old Iranian tend to convey indefiniteness by employing this numeral as a negative polarity item.

(40)
Y. 29, 6
nōiŧ aēuuā *ahū vistō naēdā ratuš aṣāŧcīŧ hacā*
"Not one existence (has been) found nor judgement in accordance with truth"

Notably, Gotō (2013:148) connects this case of the OAv numeral with Ved. *evá́* "in this way" (**a̯i̯u̯a*-) > *evá* "so, just so, exactly so" > *evá-m*, a form recharacterized with an instrumental -*m*, as in *ithá́* "here, to be sure > *ithám* "thus". Both might have derived from (*H*)*o̯i̯-u̯o-h₁*. OAv. *aēuuā* might reflect -*h₁* operating a polarity trigger

[312] Also Yt. 10, 17.

promoting negative attraction between the negative marker *nōiṯ* and the the numeral 'one'[313]. Finally, Humbach (1991:39) brings to attention a Rig-Vedic passage, which represents a similar phrase structure with similar word components. See (41).

(41)
RV. 10, 51, 4
néd evá mā yunájann átra devā́ḥ
"so that the gods cannot yoke me there".

Therefore, Ved. *evā́* "in this way" > *evá* "so, just so, exactly so" > *evá-m* may derive as well from an old instrumental of **aiu̯á-*. Cf. section 3.2.3.4. Lastly, a similar particle composition can be observed in the creation of the Latin standard negative marker: Lat. *nōn* (< **né-oi̯-no-h₁-m*) [314].

Furthermore, we find indefinites in Young Avestan after non-standard negation, concretely negative coordinates: YAv. *naēδa* "and not, nor" and YAv. *nauua* "or not, nor" [315]. Young Avestan shows a slight tendency to use negative coordinates in all kinds of combinations, as we saw in 1.1.2. See (42) for examples.

(42)
a. V2, 29
māδa.cim *aniiąm daxštanąm yōi həṇti aŋrahe mainiiəuš daxštəm maśāišca paiti.niδātəm.*
"Nor any of the other brands which are the sign of Angra Mainyu (that is) left among mortals"

b. V.18, 11
θraiiąm ***naēδa.ciš***
"(the blessing) of three is nothing"

c. Yt. 10, 71
naēδa maniiete jaγnuuå ***naēδa.cim*** *γənąm sadaiieiti.*
"neither he thinks to have smashed nor it appears (to be) any blow".

d. Yt. 6, 3
nauua.ciš *mainiiauua yazata aŋhauua astuuaiṇti paiti.drąm nōiṯ paitištąm vīδəṇti.*
"Not any refuge nor shelter the spiritual Yazata have found in this material world"

Finally, I would like to discuss two examples found in Old Avestan that

[313] Notice that one of the syntactic features of Old Iranian is the use of instrumentals as subjects (Gotō 2017:551).
[314] **(H)oi-no-h₁-lo* > Lat. *ūllus* "anyone, anything", which is also a polarity items is only present in non-veridical contexts such as subordinate negation, conditionals, and interrogatives.
[315] Also *naēδa.ciṯ* in Yt. 19, 95, *māδa.cim* in V2, 37, and *naēδa.ciš* in Yt. 14, 36.

represent the only two cases where indefinites without particles are actually activated by other non-veridical contexts besides negation. In (43a) I present an instance within an interrogative-conditional context. In Vedic we have seen examples of *káś cid* embedded within conditionals, which is a possible context for the deployment of free-choice indefinites. In this case, however, *cahiiā* works as a polarity item. In (43b), it is an interrogative sentence that activates the indefinite as a polarity item.

(43)
a. Y. 48 , 9
kadā vaēdā ***yezī cahiiā*** *xšaiia9ā.*
"When shall I know if you have control over any (danger)?"

b. Yt. 50 1
kaţ mōi uruuā isē ***cahiiā*** *auuaŋhō.*
"Does my soul command to any (kind) of help?"

In this section I tried to show in this section that polariy items such as indefinites can indeed be marked and activated as such without the use of particles. Negation, as a prior anti-veridical operator, along with conditionals and interrogatives, can directly create indefinite pronouns out of the interrogative stem without intermediaries. This is further supported by comparanda. Hittite interrogative-indefinite-relative pronominal stem Hitt. *kuiš* can be interpreted as an indefinite without the use of particles (cf. Hitt. *kuiški*), whenever it is present in non-veridical contexts (cf. section 4.1.2). Also Homeric Greek points in the same direction, as most cases of indefinites are present in non-veridical contexts (cf. section 2.2.3.1). Regarding the type of negative particles used, Vedic and Old Avestan only exhibit instances where the prohibitive marker **me-h$_1$* activates interrogatives as indefinites pronouns. I consider the nature of the prohibitive marker as a polarity item an ideal candidate for marking indefinites without the aid of particles. I will discuss this issue further in the next chapter (cf. section 4.5). For now, suffice to say that the inner morphology of this negative marker makes it not only suitable for functioning as a polarity item, but also as a trigger of non-veridicality.

3.2.2.2.6 Negative pronouns: Ved. *nákis*, OAv. *naēcīš*, YAv. *naēciš*

Vedic and Avestan possess negative absorption type of indefinites, Ved. *nákis* [316], OAv. *naēcīš*, YAv. *naēciš* [317], meaning "no one".

[316] Cf. Wackernagel (1930iii: 559-60).
[317] Univerbated negative indefinites, according to Hoffmann & Forssman (1996:162). Cf. οὐδείς.

Table 12: NEG -$k^{w}ih_1$- in IIr. languages

PIE *ne	proto-forms	dialectal proto-form	particle/adverb	indefinite
Greek	*ne-h_2oiyu-$k^{w}i$-h_1	**οὐκί**	**οὐκ** SN	***o-u-ki-***NI
Armenian	*ne-$k^{w}i$-h_1-	*$č‘$	o-$č‘$ > ***oč‘*** / ***č*** SN	
Vedic	*ne-$k^{w}i$-h_1-	*$nákī$-	***nákīm***	***nákis*** NI
Avestan	*ne-ih_1-$k^{w}i$-h_1-	*$naēcī$-	***naēcīm***	***naēciš*** NI

These negative indefinites seem to be of a certain antiquity given that several IE languages attest this formation. Moreover, they can work as the sole negator in a given sentence without the need of a standard negative marker. Thus, both Vedic and Avestan behave as strict NQ languages. However, Vedic has a peculiarity because it displays an alternative way of expressing an indefinite under the scope of negation through the use of NPI (*ná*) *káś caná*, always attested in the pre-verbal domain. In turn, Avestan does not attest such an indefinite, given the almost complete disuse of the negative polarity marker -*cina* for marking interrogative stems as indefinite pronouns. Notice that Avestan, unlike Vedic, seems to display other negative absorption formations such as the negative coordinator *naēda*/*naēδa.* Both *naēda* and *naēcis* are formed by a reinforced negative *ne-ih_1 > *naē*-, which is ultimately most suitable for negative attraction and absorption. Finally, without any traces of negative absorption forms, Old Persian only shows NPI items expressed by inherited FC indefinites OP *kasci*, *cišci.*

On the other hand, neither Vedic nor Avestan show negative agreement between a preverbal negation and a postverbal negative indefinite (=NC), as does Classical Greek. Notably, Sogdian, a Middle Iranian language, shows strict NC, in that the negative indefinite cannot appear in preverbal position filling out the argument spot of subject without the presence of a negative marker also in preverbal position: Sogd. *rtī-ši nēδe nē pērt* "Nobody believes him" (Yoshida 2009: 293). In Table 13 I summarize the syntactic patterns followed by early Indo-Iranian negative indefinites.

Table 13: Avestan and Vedic as strict NQ languages

	PREVERBAL		POSTVERBAL	
	NI > V (N I > V) $_{PI}$	I > NV	V > NI	NV > I
Vedic	*nákis* (*ná káś caná*) $_{PI}$[318]		*nákim*	
Old Persian	(*naį kasci*, *cišci*) $_{PI}$			
Avestan	*naēcis*		*naēcim*	

Vedic attests a form without secondary palatalization, *ki-* instead of *ci-*. There are 56 occurrences of this negative indefinite. In (44a-b) I provide some examples. The *Rigveda* also attests forms with the prohibitive particle, Ved. *mā́kis* (x14). It follows the same behaviour: most of the time it operates as a negative indefinite and, in some instances, as an emphatic negative "not at all".

(44)
a. RV 3, 39, 4
nákis *eṣām ninditā́ mártyeṣu.*
"No mortal scorns them".

b. RV 4, 30, 1
nákis *indra tvát úttaraḥ*
"There is no one higher than you, Indra".

Overall, there are only a few instances where this negative indefinite functions as a reinforced negative marker "not at all, never" (Withney 1879: 410; Macdonell (1910: 237). I have found this to be the case of four instances of *nákis*, as in (45a-b).

(45)
a. RV. 6, 27, 3, d
nū́tanasya índra ***nákis*** *dadṛśe indriyám te.*
"O Indra, your Indrian strength has not shown itself at all".

b. RV. 8, 21, 14, a
nákis *revántam sakhyā́ya vindase.*
"You never take on a rich man for companionship"

There are two instances of *nákīm* in the book VIII that must be interpreted as strong negatives, as in (46) [319]. Similarly, Ved. *mā́kīm* is attested up to three times and it can also convey an emphatic prohibitive negation.

[318] PI = polarity item.
[319] Also RV. 4, 17, 19 12; RV. 8, 21, 14; RV. 8, 24, 15.

(46)
RV 8, 78, 5
nákīm *índro níkartave ná śakráḥ páriśaktave*
"Never is Indra to be put down nor the able one to be circumvented"

Avestan cognates of these forms show the same pattern. Old Avestan attests four instances of the negative indefinite *naēcīš*, as in (47a-b) [320]. Some examples might be interpreted as emphatic negations instead of negative indefinites. Sometimes, the difference is hard to grasp.

(47)
a. Y. 32,7
aēšąm aēnaŋhąm ***naēcīt̰*** *vīduuå aojōi hādrōiiā.*
"I sincerely declare myself not at all conscious of such crimes/ I sincerely declare myself conscious of no such crimes"

b. Y. 34, 7
naēcīm *tām aniiām yūšmaṯ vaēdā aṣā.*
"In truth, I do not know at all anyone other than you / In truth, I know no one other than you".

For Young Avestan, there are eight occurrences of the negative indefinite [321]. The cases in (48a-b) clearly show a negative indefinite. However, the interpretation of (48c) is rather difficult, since *naēciš* can be taken as a determiner of *auuaṯ* "that" or just as an emphatic negative.

(48)
a. V. 18, 57
naēciš *aŋ́he asti uzuuarəzəm.*
"There is no rectification in this".

b.Y 65, 11
naēciš*ca aŋ́hå yāsāiti ziiānāi*
"and may no one keep for damage of this"

c. Yt. 15, 3,
yaϑa azəm nijanāni aŋrahe mainiiāuš dāmanąm ***naēciš*** *auuaṯ yō spəṇtahe.*
"I may/will strike down the creation of Angra Manyu and not (at all) that which (is) of the Spənta".

MacDonell (1910: 237 fn 1-2) has explained the forms *nákīm*/ *mā́kīm* as the accusative neuters of Ved. *nákis*/ *mā́kis* with a lengthened vowel. Although this has

[320] Also Y 43, 6, Y 43, 13.
[321] Also V 13, 19, V 3,33, Yt. 1, 6. Y. 58, 5 Yt. 3, 4. There is one case of *mācim* Yt. 13, 157, that should be considered an example of univerbation according to the manuscripts.

been the traditional view, it appears to me that these formations along with the cases where the negative indefinites are interpreted as emphatic negations [322] in both Vedic and Avestan might lead us to discern the true morphological nature of these indefinites. As I already suggested in the last chapter, the renewal and the creation of new, more emphatic, negative formations, especially negative markers and indefinite adverbs, entails the use of the instrumental suffix -h_1, which triggers negative attraction and the succeeding negative absorption between standard negative markers and interrogative-indefinite stems. Dunkel (2014: 464, 470) believes that behind these Indo-Iranian emphatic negations, concretely the accusative-like indefinites *nákīm*/ *nákīm,* there is an instrumental suffix at work, which, in turn, might have been recharacterized with an instrumental suffix -*m* [323]. I deem possible that this is the same adverbial sufffix also found in Lat. *nōn* < *né-*(*H*)*oi̯-no-h₁-m* [324] as well as in Lat. *qua-m* < *quā-m* (Os. *paam*) < k^weh_2-h_1-*m* [325]. Both morphological forms display different types of polarity: the Lat. *nōn* shows negative attraction for the creation of a new reinforced negative marker and *quā-m* marks the polarity distribution of the elements which it is attached to, in the same way as Ved. *cana* [326]. Finally I would like to stress here is the fact that there are plenty of examples in the IE languages where the instrumental suffix might have been present in the making of new negatives without leaving any traces of ever being there after having undertaken pronominal inflection. Taking into account that the instrumental ending -h_1 might have been recharacterized with -*m*, I consider **ne-k^wi-h_1-(m)* [327] for Vedic and **ne-ih₁-k^wi-h_1-(m)* for Avestan to be the original proto-forms of these Indo-Iranian formations that might have been remodelled, later on, as indefinite pronouns according to the pronominal flexion. We will see in the next chapter (cf.section 4.5) that

[322] As shown, this is particularly true about book VIII of the *Rigveda* that, however, might be endowed with some chronological problems regarding its composition, leaving some unanswered questions as to what extent it represents the oldest layers of the *Rigveda*.

[323] Cf. Dunkel (1997). In the same line, Wackernagel (1930iii: 562) suggests that behind the -*m* of *nákīm* there might be a recharacterization.

[324] Lat. *noenu* is attested (x7) and Lat. *noenum* (x6) < **ne-oi̯-no-h₁-m*. These formations point to the fact that a few phonetic developments have already taken place: 1) the shortening of the vowel -$oh_1 > \bar{o} > o$ on final position, 2) $o > u$ and 3) (in the case of *noenu*) the drop of final -*m*. See also next chapter for the attestations of -h_1 in the constructions of other negative as well as conditional markers. If, in fact, Lat. *nōn* derives from negation plus the numeral 'one', **ne-oi̯-no-h₁-m* seems like a plausible reconstruction. However, Dunkel (2014ii: 533) reconstructs **noh₁-ne* and Dunkel (2008: 408) reconstructs **noh₁-na*, after Gaul. *nane.*

[325] Cf. Schmitt (1988).

[326] For the discussion whether this -*m* is the same as the -*m* of accusative origin found in adverbial petrified formations in Indo-Iranian and Italic, cf. Dunkel (1997).

[327] Cf. Berenguer (2000: 489) for an alternative explanation of the long vowel present in *nákīm.*

the extra-paradigmatic attestation of the instrumental suffix *-m* in *-b^{h}i* languages functioning as recharacterization of a previous instrumental –especially in negative markers, conditional conjunctions, and indefinite adverbs– is a very common phenomenon.

3.2.3 Indefinite adverbs in Indo-Iranian

3.2.3.1 Existential indefinite adverb

There is an instance of the adverb *kŭ́cit* "somewhere" as an existential indefinite, as in (49). Given that it is an episodic sentence, there is no other possible reading for this indefinite but as an *specific* indefinite.

(49)
RV 9, 87,8
kŭ́cit *satī́ḥ ūrvé gā́ḥ viveda*
"She found the cattle being somewhere in the enclosure"

3.2.3.2 Free-choice

3.2.3.2.1 YAv. *kuuaciţ* , Ved. *kutaś cid* , Ved. *kutra cid*, Ved. *kádā cid*

In the same way as indefinite pronouns, indefinite adverbs, whose interrogative-indefinite stem is **k^{w}o/ k^{w}u-*, resort to particle IIr. *čid* for conveying the free-choice value. In the Rigveda we find a few examples: Ved. *kútra cid* (x3) "anywhere, wherever (to)", Ved. *kutaś cid* "from any place", and Ved. *kadā́ cid* "at any moment, ever"[328]. In Old Iranian, I have just counted four instances of YAv. *kuuaciţ* "in any place, wherever". In (50) I provide examples of these indefinite adverbs. Italic displays a similar strategy, but with the use of the particle *-k^{w}e*, as in Umbr. *pum-pe* (< *k^{w}om-k^{w}e*) "whenever" and Lat. *quan-dō-que* "whenever" (< **k^{w}e-h$_2$-m-doh$_1$-k^{w}e*).

(50)
a. RV. 5, 7, 2
kútrā cid *yásya sámṛtau raṇvā́ḥ náraḥ nṛ́ṣádane.*
"At the encounter together with whom at any place priests (come) into the sacrifice"

b. RV. 7, 1, 2
tám agníṃ áste vásavo ní ṛṇvan supraticákṣam ávase ***kútaś cit****.*
"In the home of Agni, beautiful to look at, the good ones installed to give protection anywhere"

[328] Cf. Parth. *kadā-ž*.

c. RV. 7, 104, 7
índrāsomā duṣkṛte mā́ sugám bhūd yó naḥ ***kadā́ cid*** *abhidā́sati druhā́.*
“Indra and Soma, let there be no good passage for the evildoer who at any moment with his deceit seeks to harm us”.

d. Y. 23, 3
kuuaciţ *aŋ̊hå̊ zəmō para.iristi.*
“at any place of this earth he dies”.

3.2.3.2.2 Indefinite relative adverbs

Vedic and Young Avestan show indefinite relative adverbs: Ved. *yadá kadá ca* “whenever”, Ved. *yátra kvà ca* “in whichever place”, YAv. *yaθa kaθaca* (x2) “in however way”, and YAv. *yauuaţ cuuaţ ca* “however many”. All cases are formed by the relative, the corresponding interrogative-indefinite stem, and the particle *-čā*. I already discussed *yaţciţ* “whatever, whenever”. Outside my corpus, I have found other adverbial formations in Young Avestan: P. 32 *yaiti caiti-ca* “however much” and *yaθα kaθaciţ* “in whichever manner”. As in the case with the indefinite pronouns, there exists a random alternation in the use of *čid*/*ča* for marking indefinite relatives. In (51d), the indefinite relative is within a correlative structure. Finally, notice that there are exact parallell structures in Homeric Greek, Gr. ὁππότε κε(ν) “whenever” (x17), Gr. ὅππως κε(ν) (x6) “in whichever manner”, and in Latin, Lat. *quandocumque* “whenever”, Lat. *quotcumque* “however much”, Lat. *quōmodocumque* “in whichever manner”, etc.

(51)
a. RV 3, 53,4
yadā́ kadā́ ca *sunávāma sómam agníṣ ṭvā dūtó dhanuvāti ácha.*
“Whenever we will press soma, Agni the messenger will run to you”.

b. RV. 6, 16, 17
yátra kúva ca *te máno.*
“Wherever your mind (is set).

c.Yt. 19, 82
yaϑa kaϑaca *tē ās zaošō* mana
“In whichever way was your desire”

d. V. 6, 29
yauuaţ cuuaţca *hē zastaēibiia haŋgəuruuaiiąn aētauuaţ apaţ haca nižbāraiiən.*
“However much of it they can grasp by the hands, this much may they take out from the water”

3.2.3.2.3 Repetition of the pronominal stem

Reduplication of the relative stem, Ved. *yatra yatra* "wherever" and *yáthā yathā* "in whichever way", as well as of the interrogative-indefinite stem, *kárhi kárhi cid* "at any time, whenever" [329] is available for the expression of adverbial free-choice formations. In (52b) the reduplicated relative stem operates within a correlative structure. In (52c) we see that the reduplicated interrogative-indefinite stem together with particle *cid* is within a conditional, one of the semantic contexts available for free-choice.

(52)
a. RV 6, 75, 6
ráthe tíṣṭhan nayati vājínaḥ puró ***yátra yatra*** *kāmáyate suṣārathíḥ.*
"Standing on the chariot, he leads the prizewinners [=horses] forward wherever he desires: the good charioteer"

b. RV. 4, 54, 5
yáthā yathā *patáyanto viyemirá* <u>*evá evá*</u> *tasthuḥ savitar savā́ya te*
"In whichever way they spread out while flying, in that way do they stand still for your impulsion, o Savitar".

c.RV 8, 73, 5
yát adyá ***kárhi kárhi cit*** *śuśrūyā́tam imám hávam…*
"If today, at any moment, you two should hear this invocation…"

3.2.3.2.4 Negative polarity adverbs: YAv. *kaθacina*,Ved. *kútaś caná*, Ved. *kádā́ caná*, and YAv. *kudaṯ.*

Finally, in this section I present some examples of indefinite adverbs acting as polarity items. Like in the case of pronouns, this is accomplished by the incorporation of the particle IIr **čana.* First we have YAv. *kaϑa-cina* "in any way" from IIr. *kathā́*/ *kathá-m* < **k*^{w}*o-th*$_2$*-éh*$_1$ (adverb of manner $_{[instr.]}$ < "how?") [330] and Ved. *kádā́ caná* "ever" (x3) from IIr. *kadā́* < **k*^{w}*o-d-óh*$_1$ (adverb of time $_{[instr.]}$ < "when?"), and, finally, Ved. *kútaś caná* "from anywhere" (x3).

In (53e), however, I count one example in Young Avestan where this particle is not used, YAv. *kudaṯ* "from anywhere". This form has in its original etymology an old instrumental suffix -*h*$_1$ (*kū* "where, how" < **ku-h*$_1$) that was eventually extended by a

[329] Cf. Go. *hwar* "where?", Lat. *quor* > *cur* "why?".
[330] Notice the instrumental suffix -*m* recharacterizing an instrumental -*h*$_1$. Cf. Ved. *evá* /*evám*. Regarding *kathā́* and its etymologically related instrumental ending (-*th*$_2$*-éh*$_1$), possibly also found in Hitt. *kuwatta* "to anywhere" and Hitt. *natta* "not", see next chapter.

secondary ablative ending *-δaţ* [331]. A parallel development is the replacement of the instrumental suffixes by the ablative *-aţ* in the nominal thematic inflexion (Gotō 2013: 12 fn. 26). This substitution might have been extended to the pronominal inflexion. Also cf. Ved. *paścā́* "behind"- *paścā́t* "from behind". Notice that only non-veridical triggers, such as negation, can activate interrogative pronouns as indefinites with the aid of the instrumental suffix embedded inside the indefinite adverb.

(53)
a. RV 2,23,5
ná *tám áṃho ná duritáṃ* ***kútaś caná*** *nā́rātayas titirur ná dvayāvínaḥ.*
"Neither distress nor difficulty from anywhere overcomes him, nor hostilities nor the duplicitous ones"

b. RV 6, 54, 9
pū́ṣan táva vraté vayáṃ ***ná*** *riṣyema* ***kádā caná***
"Pūṣan, under your commandment might we never suffer harm"

c. RV. 8, 51, 7
kadā́ caná *starī́ḥ asi ná indra saścasi dāśúṣe*
"Never are you a barren cow, nor, Indra, do you go dry for the pious man".

d. Vr. 22, 2
mā *aδa* ***kaϑa-cina*** *paiti.jime.*
"So that he cannot be found in any way"

e. V. 1,1
nōiţ kudaţ *šāitīm.*
"From where (threre is) no happiness" (lit. not from anywhere, [where there is] happiness).

3.3 Summary

In this chapter, I have shown how consistent the Indo-Iranian strategies are for marking the different functions performed by indefinites pronouns and adverbs. The fact that Indo-Iranian does not display any strategy for marking specific/existential indefinites might point to the absence of this type of indefinites in the proto-language, which feature is also confirmed by the Anatolian data, as we will see in the next chapter. The expression of non-specificity, concretely free-choice and negative polarity items, seems to be the priority among indefinites formations. The few instances found in Vedic where *káś cid* can be interpreted as a specific indefinite might represent

[331] Cf. Dunkel (2014ii: 17, 437).

another example of a diachronic extension –or weakening– of the indefinite functions from free-choice to specific (existential) indefinites, similarly to Hitt. *kuišk*i [332].

Free-choice strategies are the most numerous in Indo-Iranian. The most important one is the interrogative-indefinite stem IIr.**ka*- plus the particle IIr.**čid*. In relation with this particular indefinite, Old Iranian manifests a semantic change from free-choice indefinite "any" to the universal quantifier "every", similarly to Lat. *quisque* [333]. I also noted that the indefinite *sama*- can operate as a free-choice indefinite too. A second major means of expressing free-choice is the use of the indefinite (free-) relatives IIr.**ya- ka/ci*- together with particle **ča*. As I pointed out, this structure is well attested in other IE linguistic families such as Greek and Italic. Whithin this group of indefinite relatives, I also analyzed IIr.**ya-cid*, which, on the one hand, has a clear free-choice meaning in both Avestan and Old Persian, and has, on the other, a conjunctional value –along with particle *hi* in Vedic. Thirdly, reduplication of the relative or of the interrogative-indefinite stem is yet another strategy found in Indo-Iranian. Typologically speaking, although reduplicated indefinites tend to convey a free-choice meaning or the value of a distributive universal quantifier "every, each", they can actually adopt polarity semantics as well, as OP *cišci*. Finally, I mentioned relative-correlative constructions as another strategy for the expression of free-choice, which seems to be crosslinguistically common.

For marking negative polarity items based on the indefinite-interrogative stem IIr.**ka*-(*tara*-), Old Indic consistently resorts to particle IIr.**čaná*. To the contrary, Old Iranian exhibits an almost complete absence of this function –only attested with the adverb YAv. *kaθacina*– and it only exhibits -*cina* as an emphasizing particle. I posed, though, that **k*^{w}*e-ne* functioning as a negative polarity marker is also seen in Germanic and, probably, in Armenian too. Nevertheless, not only Vedic, but also Avestan and Persian attest the numeral one along with particle IIr.*čana*, as in Ved. *ékaś caná*, YAv. *aēuuocina*, and possibly MP *ēzin* < OP **aiva-cinā*. Additionally, I discussed the inherently negative meaning conveyed by particle Ved. *caná* without the presence of any kind of negator, which have parallels in Ved. *nu cid* "never". As in the case of the latter, the most logical reason for this adaptation or better to say, transfer of negativity into its semantics can be explained by its frequent presence within the scope of negation. I also treated some cases where the inherited free-choice indefinite Ved. *káś*

[332] Cf. Haspelmath (1997: 150).
[333] Cf. Haspelmath (1997: 154-6).

cid or OP *kašci* was used along with negation, mostly attested with the prohibitive marker. Although an alternative view can be seen in the use of a non-episodic prohibitive negation in correlation with the extratemporal nature of the injunctive mood, I believe that these examples just reflect the redeployment of free-choice indefinites as polarity elements. Lastly, I also showed that non-veridical semantic contexts can generate indefinites out of the interrogative stem without the use of particles. Thus, conditionals and interrogatives can also activate interrogative stem-based indefinites as polarity items. In the same way, IIr.**mā*, a polarity item itself, is an inherited trigger of interrogative stem formations as indefinite polarity items, as seen in Vedic and Avestan. Young Avestan exhibits as well the use of other negative markers, especially negative coordinates, but this would represent a secondary development.

I argued that this function of IIr.**mā* is related to its inner morphology, i.e. **meh$_1$*, where *-h$_1$* makes it sensitive to non-veridical contexts as well as able to be a catalyst of polarity elements. In turn, I have implied that *-h$_1$* is connected with the renewal and creation of new negative markers, as observed in the reinforced negative marker **ná-íh$_1$-t* > Av. *nōiṯ*, OP. *naiš*, as well as in negative adverbs such as **ne-íh$_1$-k^{w}i-h$_1$-* > Av. *naēcīm* and **ne-k^{w}i-h$_1$-* > Ved. *nákīm*.

CHAPTER 4: Indefinites and polarity in other IE languages

4. Introduction

In the chapters 2 and 3, I have already mentioned the etymology and behavior of other IE languages indefinites pronouns. In this chapter, I intend to carry out a more in depth survey through the indefinite systems of other IE languages in order to attain a comparative perspective of the strategies that these languages tend to display for the expression of indefiniteness. This would allow me to assess whether the morphological formations and phenomena attested in Greek and Indo-Iranian should be labeled as inherited from the proto-language or not. Thus, I will study the indefinites in Latin, Hittite, Gothic and Armenian in order to elaborate a general view of indefinites and polarity in Indo-European. Unlike the chapters on Greek and Indo-Iranian, for this section I do not carry out a thorough analysis of all occurrences of indefinites in these languages, but I rather base my study on grammars and etymological dictionaries as well as on a surface analysis of a selection of passages taken from a variety of papers and books chapters where occurrences of indefinites are present. Next, I will deal with another means of expressing free-choice in Hittite that relates to relative-correlative constructions. Thirdly, I will also discuss the use of *-k^we in conditionals and in relative indefinites and how this is connected to the inner semantics of this enclitic particle. Moreover, I will treat strong polarity adverbs in Latin that might represent a clear use of -h_1 as a polarity sensitive marker. And, finally, I will briefly describe the orginal semantics of the instrumental case and how it is the most suitable case for the reinforcement of negatives. I will mention the different instrumental suffixes attested in the IE languages and how many of them are connected to negative markers, conditional conjunctions, and indefinite adverbs. Thus, on the one hand, I will argue about the existence of a synchronic renewal of negatives in several IE languages through the use of -h_1 that ultimately led to the creation of new negative markers and indefinites and, on the other hand, I will show how different instrumental suffixes are employed along with indefinite adverbs. I believe this section dealing with indefinites in other IE languages and related phenomena, although not exhaustive and based on secondary sources, will suffice to elaborate a historical-comparative view of IE indefinites that will help to

understand better the inherited or parallel developments displayed by indefinites from PIE into the historical attested languages.

4.1 Indefinites and polarity in other early IE languages

4.1.1. Latin and Sabellian indefinites [334]

As I have argued in the previous chapters, semantic contexts point to a polarity-sensitive distribution of indefinites in Homeric Greek. In the case of Indo-Iranian, this intrinsic polarity sensitivity is further marked by particles **čid* and **ča*. In this section, I will briefly discuss what is the case of Latin and other Italic languages that show a far more clear-cut polarity distribution of indefinites. As in the case of Greek and Indo-Iranian, most Latin indefinites are based on the interrogative-indefinite stem **$k^{w}i$-*, which Latin also employs as the base of relative pronouns, cf. Hitt. *kuiš*. Latin possesses different indefinite series covering the different functions found in Haspelmath's semantic map. In his work, Haspelmath (1997:253-256) studies the distribution of Latin indefinites, for which he depicts the semantic map of Latin indefinites reprodruced on figure 1.

Figure 1: Distribution of indefinites in Latin (after Haspelmath 1997: 254)

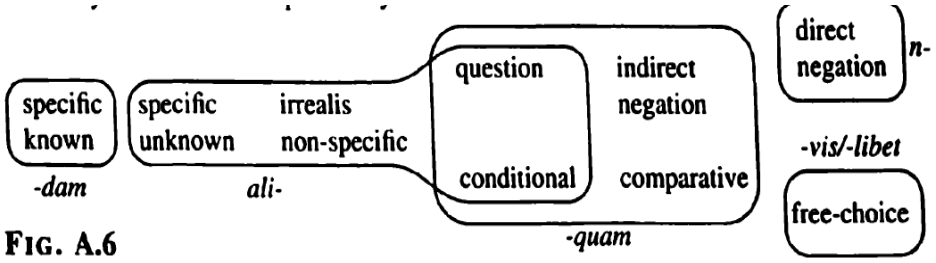

FIG. A.6

First, there is a *specific known* indefinite *quidam* "some", as in (1).

(1)
Tac. Ann. 1,56
cum ***quidam*** *ad Germanicum perfugissent*
"When some have come to Germanicus…"

[334] For this section I have used the studies of Bertochi *et al*. (2010:19-173), Pinkster (2015:1101-1015;1162-1171), Ernout & Meillet (2001), de Vaan (2008), and Weiss (2009). Cf. also Gianollo (2019), who adds one more function to Haspelmath's semantic map: epistemic indefinites. Most examples– texts and translations–are taken from Bertochi *et al*. (2010).

The Lat. *aliquis* "some" series is generally *specific* (irrealis and specific unkown), although it can operate in two non-veridical contexts (interrogatives and conditionals), as in (2).

(2)
a. Hor. Sat. 2,3,5 (irrealis)
dic ***aliquid*** *dignum promissis: incipe*
"Say something worthy of the promises: go ahead"

b. Sen. contr. 10,4,3 (conditional)
quid, si ***aliquis*** *ex istis futurus est uir fortis?*
"What if someone of these is destined to be a hero?"

Moreover, *quisquam* "anyone" acts as a strong polarity item [335], being only allowed in questions, conditionals, standard of comparison, and indirect negation, as in (3). I will argue below that the suffix *-quām* is composed by the instrumental *-h_1* added to the pronominal stem and that the *-m* is an instrumental suffix employed here for recharacterization. A pronoun not mentioned by Haspelmath is the polarity determiner *ūllus* "anyone" (< **oi̯-no-lo-*) that works as a determiner counterpart of the pronominal *quisquam* and is only present in non-veridical contexts such as subordinate negation, conditionals, interrogatives, etc [336]. I provide an example of this determiner in (3c).

(3)
a. Plaut. Aul. 645 (conditional)
di me perdant, si ego tui ***quicquam*** *abstuli*
"May I be damned, if I carried off anything of yours"

b. Cic. Phil. 2,1 (indirect negation)
nec uero necesse est ***quemquam*** *a me nominari*
"There is in truth no need that any man be named by me".

c. Plaut. Capt. 590
neque praeter te in Aulide ***ullus*** *seruus istoc nominest*
"and besides you there's not any slave in Elis of that name"

Finally, there is also a negative series [337] made up by *nemo* (< **ne homo*) "no one" and *nihil* "nothing" (< **ne-hilum*), both of them with adnominal reinforcements,

[335] There is an archaic indefinite *quispiam* "anyone" acting as a polarity item that is mainly present in conditionals and interrogatives.
[336] Cf. also *nūllus* "no".
[337] According to Van der Auwera & van Alsenoy (2018)'s tipology, Latin is a strict NQ language.

and, finally, two free-choice indefinites, *quis-libet* and *quis-uis*. I provide some examples in (4).

(4)
a. Plaut. Most. 899–901
Homo ***nemo*** *hinc quidem foras exit*
"No man is coming out from here, that's for sure!"

b. Cic. Phil. 12,24
scio ***quiduis*** *homini accidere posse*
'for I know that anything may happen to a man'

c. Cic. Att. 9,7,5
abeamus igitur inde ***qualibet*** *nauigatione*
'so let me depart on any kind of voyage'

There are other indefinites not included in Haspelmath's semantic map that should be mentioned. There are some other free-choice indefinites such as the reduplicated pronominal *quisquis* (< **k*^{w}*is-k*^{w}*is*) and the already mentioned relative indefinite *quicumque* [338] "anyone, whoever" (< **k*^{w}*i-k*^{w}*om-k*^{w}*e*) that normally goes in non-specific free relative clauses, there being no attestations as a pronoun in early and Classical Latin. I provide in (5b-c) some examples from Latin and Sabellian. Also, there is a universal distributive quantifier *quisque*, an inherited free-choice pronoun that has evolved into a universal quantifier (any > every > each)[339]. In (5d), I present an example of *quisque* as free-choice. In (5e), I give an example with a universal interpretation, which is the most common one.

(5)
a. Virgil, Aeneid,
Quidquid *id est, timeo danaos et dona ferentis.*
"Whatever that is, I fear the Greeks, even bringing gifts".

b. Plautus, Persa 65
nam publicae rei causa ***quicumque*** *id facit magis quam sui quaesti, animus induci potest,eum esse civem et fidelem et bonum.*
"For whoever does this, more for the sake of the public than of his own benefit, my mind can be induced to believe that he is a citizen both faithful and deserving".

c. Umbrian, Um1,va,3−4 (Sabellian).
arfertur ***pisi pumpe*** *fust eikvasese atiieřier.*
"The arfertor, whoever will be in the Atiedian brotherhood"

[338] We can also find this collocation in tmesis configuration: Lat. *quibus…cumque*, as in Indo-Iranian.
[339] Cf. Opfermann (2017).

d. Plaut. Amph. 558
proinde ut commodumst et lubet ***quidque*** *facias.*
"So do anything that suits your convenience and taste"

e. Liv. 38,23,11
laudati quoque pro contione omnes sunt donatique pro merito ***quisque***.
"Also, before an assembly all are praised and everyone is being bestowed according to his merits"

Finally, I would like to discuss one more indefinite formation that perfectly reflects the inherited sensitivity of indefinite pronouns towards non-veridical contexts: this is the case of *quis*, whose presence, according to Bertochi et al. (2010: 29 ff), is limited to contexts in which a situation is depicted as hypothetical or virtual. Thus, the value expressed is always neutral, not involving either a negative or a positive feeling. Most cases of *quis* appear after the conditional conjunction *si* or the negative *ne*. Nevertheless, it can also appear after the interrogative particles *num*, *an*, and the temporal conjunctions *ubi* and *cum*, although of the latter two there are only examples from Classical Latin onwards. In (6), I provide some examples.

(6)
a. S.C. *de Bacch*. 3−4
sei ***ques*** *esent quei sibei deicerent…*
"If there were any who say that they..."

b. Cic. Phil. 14,18
quod si ***quis*** *de contentione principatus laborat stultissime facit*
"but if anyone is anxious to compete for leadership he acts most foolishly"

c. Cic. Q. Rosc. 24
ne ***quis*** *aut in genere iniuriae aut ratione actionis errare possit*
"so that not anyone can possibly be mistaken as to the nature of the injury or the method of the legal procedure"

As shown, Latin displays a rich variety of indefinites that distinctly perform different functions according to their semantic distribution. I provide in Table 1 a summary of all Latin indefinites studied here and their function is provided.

Table 1: Latin Indefinites

Universal	Nominal FC	Relative FC	Polarity Item	Specific	Negative
quisque	*quisuis* *quislibet* (*quisque*)	*quisquis* *quicumque*	*quisquam /ullus* *quispiam* *aliquis* *quis*	*quidam* *aliquis*	*nemo* *nihil*

4.1.2 Hittite indefinites [340]

In this section, I will deal with Hittite indefinite pronouns that in many respects exhibit similar patterns as Greek, Indo-Iranian, and Latin indefinites pronouns. Sideltsev & Yakubovich (2016) notice that affective polarity elements as well as existential quantifiers (*specific* indefinites) are represented by the same indefinite Hitt. *kuiš-ki*, as in (6). This indefinite pronoun is formed by the addition of a postfix to the inflected bare *wh*-form.

(6)
a. CTH 291: KBo 6.3 ii 31 (OH/NS): *kuiški* as an existential indefinite.
nu=šmaš šardiyaš ***kuiški*** *paizzi.*
"And some supporter goes to them"

b. KUB 11.1 + iv 21 (OH/NS): *kuiški* as a polarity item.
nu šarnikdu LUGAL-i= ma=apa l̲ē ***kuitki.***
"May he compensate, but to the king let there not be anything"

Huggard (2015: 34 ff.) adds to this type of polarity indefinite *wh*-words (i.e. bare interrogatives-relative, Hitt. *kuiš* "who?, who") that can also be used as polarity items when they are present in non-veridical contexts: under the scope of negation (*ŪL*), interrogatives of yes/no questions (with *nekku*), and conditionals (*takku*/*mān*). Hittite also attests the use of *kuiš* without particles in multiple partitive constructions, although in this case *kuiš* has a value of an existential indefinite "some". In Table 2, I provide a complete list of indefinites after Sideltsev & Yakubovich (2016:112), with the addition of particle-less *kuiš*, following Hoffner & Craig (2008: 149) and Huggard (2015).

Table 2: Hittite indefinites

Universal quantifier	**Relative FC**	**Nominal FC**	**Polarity item**	**Existential quantifier**
kuišš-a	*kuiš imma* *kuiš (imma) kuiš*	*kuiš imma (kuiš)* [rarely] *kuiš-ki*	***kuiš*** *kuiš-ki*	*kuiš-ki* ***kuiš // kuiš***

In (7), I provide some examples of Hitt. *kuiš* as a polarity item and as an existential quantifier.

[340] For this section, I have mainly used Hoffner & Craig (2008), Kloekhorst (2009), Huggard (2015), and Sideltsev & Yakubovich (2016). Most examples are taken from Huggard (2015) and Sideltsev & Yakubovich (2016). Texts and translations are taken from the same sources.

(7)
a. CTH 19.II.A: KBo 3.1 + ii 43–44 (OH/NS)
parkunuši=ma=za ŪL ***kuit****.*
"However, you do not clean anything".

b. CTH 374.2.A: KUB 36.75 ii 13–14 (OH/MS)
ūk=za nekku DINGIR-YA tuk ***kuit*** *iya[(anu)]n*
"I have not done anything against you, have I?"

c. CTH 147: KUB 14.1+ rev. 45 (MH/MS)
nu=wa=mu mān idālun memiam ***kuiš*** [*memai*]
"If anyone tells me a bad word".

d. CTH 40: KBo 5.6 i 21 (NH)
nu=kan ***kuit*** *kuenner* ***kuit****=ma=za=kan anda ēpper.*
"And some (of them) they slew, some (of them) they seized".

However, this use of the bare interrogative/relative pronoun as an indefinite pronoun is not systematic, as can be seen in (8a-b), where the indefinite *kuiški* is the indefinite accompanied by non-veridical triggers such as the negative marker *lē* and the conditional conjunction *takku*. There are several occurrences of the indefinite *kuiški* being clearly used as a polarity item. On the other hand, Sideltsev & Yakubovich (2016:9) affirm that the inherited value of Hitt. *kuiski* is that of a free-choice item that, later on, would have been evolved into a polarity item already in Old Hittite times [341].

(8)
a. CTH 258.1 §10″ [342]
lá-aš lugal-wa-aš ésag-[an p]a-ni zi-šu le-e ***ku-iš-ki*** *ki-nu-uz-zi*
"No one shall open the royal grain storage pit on his own accord".

b. CTH 258.1 §10″§6′
ták-ku el-la$_{12}$*-ma* ***ku-iš-ki*** *da-i-*ia*-zi nu da-i-ia-zi-la-aš šar-ni-ik-ze-el ˹nu-za?˺ x x-iš*
"If, however, some free man steals, and compensation for the theft (is paid), and […]"

Thus, after Luján (2009), Huggard (2015), and Sideltsev & Yakubovich (2016), I propose the following chronological developments of *kuiš*/*kuiški* from a free-choice into a polarity item, and, in turn, into an existential quantifier, as shown in Table 3

[341] The use of *takku* as a conditional conjunction is a clear indicator of Old Hittite –unless we are dealing with copies of older tablets. Moreover, this semantic change from free-choice into negative polarity item implies a special case of semantic *weakening* or free-choice extension, given that, crosslinguistically, free-choice items usually extent into the comparative and conditional slots within Haspelmath's semantic map, and not into the direct negation function (Haspelmath 1997: 149-50).
[342] Miller (2013: 136-139).

(Interr. = interrogative, Rel. = relative, EQ = existential quantifier, PI = polarity item, FC = free-choice).

Table 3: *kuiš/ kuiški* 's semantic development

**k^{w}o- /k^{w}i-* INTERR. > indef./relat.	*kuiš* INTERR "who?" > *kuiš* REL "who" // *kuiš* EQ$^{??}$ / PI "someone$^{??}$/anyone"	
Free-choice strategies in Hitt.	*kuiš* (*imma*) *kuiš* FC / *kuiš* indeter.FC "whoever"	*kuiš-ki* FC "anyone"
Extension from Free-choice	*kuiš-ki* FC "anyone" > *kuiš-ki* PI "anyone" > *kuiš-ki* EQ "someone"	

This semantic change from free-choice into negative polarity items, into *specific known* existential indefinites –in a leftward direction of the semantic map– has been coined by Haspelmath (1997:149-153) as "extension from free-choice" or "weakening" [343]. This kind of grammaticalization is crosslinguistically common and consists in the gradual disposal of free-choice indefinites of their features of non-specificity and unknownness. Therefore, *kuiški* must have lost some of the original functions, seen in (8), in the right-most part of Haspelmath's semantic map, the free-choice meaning. It is worth mentioning that its cognate Lat. *quisque* FC evolves into a distributive/universal quantifier, which is another seemingly common process of grammaticalization: free-choice > universal (Haspelmath 1995: 8-11). Overall, Hittite, as other IE languages, consistently deploys interrogative-indefinite stem pronouns as polarity items when found in non-veridical contexts such as negation, interrogatives, and conditionals. Therefore, traces of this affinity between indefinites and polarity contexts in Hittite can be observed in the use of the simple relative-interrogative form *kuiš* as a non-marked indefinite, which later would have eventually come to be substituted by *kuiški* in similar contexts. Interrogative-indefinite adverbs such as *kuwapi* "when, where?; anytime, anywhere" (< **k^{w}ó-b^{h}i*) [344] and *kuwat* "why, how?; anyway" (< **k^{w}ó-t*) [345] not only express an indefinite value when followed by the particle *-ki*/*-ka*, but also when they are present in conditional contexts, similarly to *kuiš* (Puhvel 1997: 227-229).

[343] This weakening is assumed by Sideltsev & Yakubovich (2016: 38 fn 34), who follow Haspelmath (1997).
[344] Cf. Lat. *ali-cubī / ubī.*
[345] In this form I asume an instrumental suffix, although that *-t* has been traditionally considered an accusative neuter singular ending.

Finally, in (9) I provide examples of the universal indefinite *kuišša* and the free-choice reduplicated form *kuiš kuiš* [346].

(9)
a. CTH 631.1.B: KBo 17.11+ i 49 (OH/OS)
kuišš-a *=z 10 GÍN KÙ.BABBAR dāi*
"Everyone/each takes for oneself 10 sheckels of silver".

b. [LÚ.MEŠ] *SARIPUTI* ***kuēš kuēš*** *ammel ešer nu=šši=kan ḫūmanduš=pat anda ḫandaer.*
"Whichever purple dyers were mine, all joined with him"

As can be observed, Hittite exhibits different types of indefinites, all of them based on the interrogative-indefinite stem *kuiš*, that perform different semantic functions depending on the semantic context they are embedded in.

4.1.3 Armenian indefinites [347]

Armenian indefinite pronouns also display a very clear-cut polarity distribution. We have the indefinite *omn/imn* "someone, something" that operates as a non-polarity/existential polarity item and the indefinite *ok‘/ inč‘* [348] "anyone, anything" that works as an affective polarity item only licensed by negation, conditionals, irrealis relatives, interrogatives, and similar non-veridical semantic contexts. I provide a few examples in (10).

(10)
Mt. 8, 21
mi ***omn*** *yašakertacʿ n nora asē cʿ na‘*
"(some/a certain) one of his disciples said to him …"

b. Mt 6, 24
očʿ ***okʿ*** *karē erkowcʿ terancʿ carayel*
"No one (=not anyone) can serve two lords"

c.Mt. 5.39
etʿ e ***okʿ*** *acicʿ ē aptak yaǰ cnawt kʿ o*
"If anyone should strike you in the right cheek"

[346] Kloekhorst (2009: 488).
[347] For Armenian I have made use of Godel (1975), Klein (1997, 2011, 2017), Martyrosian (2010), Kölligan (2006), and Meyer (2015).
[348] The original *ik‘*, which is only present in *c‘ik‘*, has been replaced by *inč‘*.

Klingenschmitt (1982:100) has suggested that *omn* may derive from **k^{w}os men*, although Godel (1975: 108) connects *omn* with Go. *sums*. The etymology of *ok*‘ that has been traditionally proposed is **k^{w}os-k^{w}e* [349]. As shown in the last chapters, this is the reconstructed form of a number of inherited free-choice indefinites. Therefore, its meaning would have developed from free-choice to negative polarity item, similarly to Hitt. *kuiški*. Nevertheless, I wonder whether it might be possible to derive *ok*‘ from **k^{w}os-k^{w}ene* (cf. Ved. *caná* and Go. *-hun*), which after the apocope of the unstressed final syllable *-ne*, might have become reanalyzed as the indefinite **k^{w}os-k^{w}e* [350]. Additionally, *ok*‘/*inč*‘ forms derived after a relative pronoun act as free-choice indefinite relatives *or ok*‘/ *or inč*‘ “whoever, whatever”. Also the combination of this structure (relative + polarity item) with the universal quantifier *amenayn* can also result in a free-choice reading: *amenayn or ok*‘/*inč*‘ “whoever, whatever”. There seems to be no nominal free-choice item in Classical Armenian. Finally, the *-k*‘ /*-mn* opposition extends also to adverbials: *erbek*‘ / *erbemn* “at some time/at any time” and *owrek*‘ /*owremn* “somewhere/anywhere”.

4.1.4 Gothic indefinites [351]

Gothic also shows traces of polarity [352] and, as most IE languages, it develops its indefinite pronoun from the interrogative stem PIE **k^{w}o-/k^{w}i-* > P.Gmc. *h^{w}a-/h^{w}e-* “who, what” (Harðarson 2017:928-9), only inflected in singular. There is also the indefinite *sums “*someone” (Cf. Ved. *samá* “anyone” < PIE **suma*), which appears to work as a non-affective item. In the same line as Indo-Iranian indefinites, Gothic tends to mark by means of particles the interrogative-indefinite stem as negative polarity or free-choice indefinites. There is a first group of indefinites with particle *-uh* (< **u-k^{w}e*) [353]: *ƕaz-uh* “every”, derived from the inherited free-choice indefinite **k^{w}o/i-k^{w}e*, which has a universal meaning similar to Lat. *quisque* “anyone > every”. The same applies for *ƕarjizuh* “each” and *ƕaþaruh* “each of two”. A second group consists of negative polarity items such as *ƕas-hun* “(not) anyone” and *ains-hun* “(not) anything”, whose suffix *-hun* (< **h^{w}ene* < **k^{w}ene*) –the instrumental based particle that is also involved in

[349] Cf. Klein (1997), De Lambertie (2013) and Olsen (2017).
[350] See section 4 of this chapter.
[351] For Gothic, I have used Streitberg (1971), Lühr (1976), Matzel (1982/3), Agud & Fernández (1982), Lehmann (1986), Klein (1992), and Harðarson (2017).
[352] Cf. Harðarson (2017:928-9).
[353] **-k^{w}e* only preserved without **u* in *nih* “if not” and *jah* “and”

developing polarity sensitive elements in Indo-Iranian– is consistently deployed as a polarity marker for indefinite pronouns and adverbs that always must be in contact with negation, as in (11). However, unlike Ved. *caná*, it cannot appear without negation, i.e. there seems to be no negative cycle attested [354]. Other forms attested with this particle are *manna-hun* "anybody"[355], *ƕan-hun* "ever", *ƕeilo-hun* "(not) even for a moment"[356]. Although Lehmann (1986:194), Wright (1910:132), Harðarson (2017: 928) persist in considering **k^wene* as the fusion of the coordinate and negation "and" + "not", Lühr (1976: 87-88 fn.9) clearly sees its connection with an instrumental ending. A Germanic cognate of *-hun* would be West Old Nordic *þey-gi* "not at all", with a Verner's variant (*h* / h^w > ɣ / ɣ^w).

(11)
John 6, 65
jah qaþ duþe qaþ izwis þatei ni ***ainshun*** *mag qiman at mis*
"And he said: because of that I have told you that no one can come to me…"

Mt. 9, 16
aþþan ni ***ƕashun*** *lagjiþ du plata fanan þarihis ana snagan fairnjana*
"But not anyone puts a patch from a new cloth over an old dress"

Similarly to Greek, Indo-Iranian, Hittite, and Latin, Gothic shows bare interrogative *ƕas* acting as a polarity indefinite pronoun, only when it is within non-veridical contexts such as negation and conditionals, as in (12 a-b). Notably, Gothic can also use the bare interrogative as indefinite in a future/uncertain statement, marking thus non-specific *irrealis* indefinites "some". See (12c) for an example.

(12)
a. Mt. 5, 41
jah jabai ***ƕas*** *þuk ananauþjai rasta aina,…*
"And if anyone forces you to go one mile,…"

b. John 7: 4
Ni manna in analaugnein ***ƕa*** *taujifi*
"No man does anything in secret"

[354] To be fair, there are a few occurrences of the word *þis-hun* "especially" that does not interact with negation and it may represent an instance of *-hun* as a positive emphasizing particle "also, even". Such cases are also seen in Ved. *caná* (Macdonell 1916:230).
[355] Cf. Lat. **nē homo > nemo* , OP. *naiš…martiya* (cf. *aiva martiya*), Hom.Gr. οὔ τις ἀνὴρ.
[356] Similarly to Gr. οὐδενόσ-ωρος, where the Greek focus particle οὐδε carries out the function performed by the emphasizing particles Goth. (*ni*) *-hun* and Ved. (*ná*) *-caná* "not even".

c. Lk. 7, 40
skal þus ***ƕa*** *qiþan*
"I must tell you somehting".

I have intended to show in this section that other IE languages resemble in many respects to Greek and Indo-Iranian in their polarity distribution of indefinites, in their use of bare interrogatives as polarity indefinites, and in their employment of particles to overtly mark indefinites with different functions.

4.2 "Indeterminate" correlative constructions in Anatolian and other IE correlative constructions

Besides the use of the multiple combinations between the relative/indefinite stems and generalizing particles, another very productive non-marked way of expressing free-choice is the relative-correlative constructions, as I showed in the chapter on Indo-Iranian. Hoffner & Melchert (2008:424-25) and Van de Hout (2011:89-90), following Held (1957) and Garret (1994), explain how Hittite makes use of preposed relatives clauses for the expression of non-specific and indefinite referents by positing the relative pronoun in clause-initial position [357], as in (13 a-b).

(13)
a. KBo. 6.4 iv 15{16)
nu=šši=ššan ***kuit*** *šaḫḫan LUGAL=uš dāi // nu apāt ēššai.*
"Whatever service the king imposes on him, he will do that".

b. CTH 261.I.B: KUB 13.2 ii 22–23 (MH/NS)
kuiš*=a=kan wetenaza šaḫāri // n=an=kan šarā šanḫandu.*
"Whoever is clogged up with water, let them sweep it out"

Sideltsev & Yakubovich (2016:5) count this phenomenon among the syntactic strategies of expressing the free-choice value. Yates (2014) agrees that Lycian relatives seem to operate in the same way. However, in his analysis of the Luwian evidence, he suggests that it is not possible to reconstruct such a strategy for Proto-Anatolian, since Hieroglypic Luwian shows several instances where the relative pronoun is not in clause-initial position, but whose interpretation, nevertheless, is indeterminate. Thus, he reassesses what he coins the Garret-Held rule in the following way: preposed relative clauses in which the relative pronoun is non-initial may be either determinate or

[357] It can also go after introductory particles and enclitic pronominals.

indeterminate in proto-Anatolian (as shown by Luwian). On the other hand, preposed relative clauses in which the relative pronoun is clause-initial are (always) indeterminate ,as shown by Hittite.

Thus, this strategy is related to the relative-correlative constructions, since most matrix clauses of Hittite indeterminate relative clauses have a demonstrative pronoun co-referential to the relative [358]. Huggard (2015:114; 143), following Garret (1994:44), goes further and implies the semantic and syntactic equivalence between Hittite relative-correlative (indeterminate relatives) constructions and conditional clauses (with the conjunctions *takku*/*mān*) [359]. Yates (2014: 5) seems to point to the same interpretation taking into consideration the Lycian material, whose Greek parallel text shows a conditional clause, where Lycian has a free-choice relative [360]. However, following Giannakidou (2001:52), I consider that this interpretation of relative clauses as conditionals is just a byproduct of the universal-like reading of free-choice. Take, for instance, example (14a), taken from Giannakidou (2001).

(14)
a. *That night John talked to* ***any woman who*** *came up to him*

b. ***Whatever*** *you do, do it now.*

(15)
a. KUB 13.2 iii 16
kuiš*=an=šan EGIR-pa tarnai // n=*<u>*an*</u> *šakuwanzi.*
"Whoever/anyone who lets him back, they will imprison him"

b. CTH 258.1 §10″§6′
<u>*ták-ku*</u> *el-la*$_{12}$*-ma* ***ku-iš-ki*** *da-i-*ia*-zi…*
"If any free man steals…"

Likewise, as in (15a), Hittite relatives in clause-initial position mark iterative predicates "whoever, anyone who", which denote actual states of affairs deemed to be true in some possible world, similar to the *i*-alternatives provided by free-choice. Indeed, underneath this structure there is an underlying conditional operator which

[358] Cf. de Vries (2002: 175). Hieroglyphic Luwian also attests such constructions: *kwis….// wa/i-tu* "whoever…., him" (EMIRGAZI B, 2-4 (+A, 6-7 + C, 4).
[359] The same conditional interpetation is given by Vitti (2008: 401-2) to the Vedic *yat cit dhí*, by Gonda (1954: 201) to Greek ὅς κεν, and Skjærvø (2003) to YAv. *yaṯciṯ*, all of which I interpret as free-choice indefinite relatives whose conditionals semantics is a byproduct of the multiple alternatives offered by the free-choice indefinite relative.
[360] The same conditional interpretation can also be seen in HLuw. indefinite relative (FC) *kwati kwatiha*. Cf. Hawkins (1975: 144).

provides a universal reading [361]. In the case of relative-correlative structures (Hittite), the content in the relative clause provides the restriction of the *i*-alternatives, whose actual referent is marked in the matrix clause by a demonstrative pronoun correlated to the relative. On the other hand, nominal free-choice such as *kuiš*(*ki*) can be present within overt conditional clauses, as in (15b). As can be observed, both sentences share non-veridical semantics. In the next section I will show the morphological parallels between conditionals and free-choice relatives and how the particle *-k^we is a common denominator in both.

Moreover, we can see in other languages the same relative-correlative constructions. Gothic attests the relative-correlative construction *saei… þizuh*/*sah* with the same indefinite meaning, as in (16). Notably, Gothic marks these constructions by the addition of *-uh* to the demonstrative "resumptive" pronoun present in the matrix clause.

(16)
Matthew, 5, 19
iþ ***saei*** *taujiþ jah laisjai swa, sah mikils haitada in þiudangardjai himine*
"and whoever does and teaches so, that one will be called great in the kingdom of the heavens'

Also Tocharian B makes use of this strategy, as pointed out by Adams (2015: 27; 30; 155-6), and as shown in (31) [362]. The Toch. B relative-correlative formation: k_u*se …su* expresses and indefinite relative, in which the relative pronoun is in clause-initial position and the verb in the subjunctive or optative mood. On the contrary, for definite, non-correlative relative clauses, Tocharian B utilizes a different relative *mäksu* < **mé*(*n*)- k^w*u-so-u*, which is never in correlation.

(17)
PK-AS-7B-a5/6c
kuce *te ⌈ma⌋nt wnawa, tu nke wenau anaisai.*
"Whatever I have so said, that will I now speak clearly."

[361] *If any one woman* came up to him, John would have talked to her > John would talk to *any* woman who came up to him.
[362] For the syntactic placement (*in situ* vs *wh*-movement) of the interrogative/relative pronouns in Tocharian, cf. Hearn (2017).

4.3 *-k^we in conditionals and relative indefinites

As mentioned in section 4.2, the semantics of conditionals and indefinite relatives are very similar. Now I will discuss the involvement of particle *-k^we in both types of sentences in order to assess whether there is any semantic trait issued by this enclitic particle that points to its value as a non-veridical marker.

Together with Italic and the Tocharian languages A and B, Hittite has *k^wi/k^wo- as the base for its relative pronouns. On the other hand, Greek, Indo-Iranian, Phrygian, and Celtiberian have *(H)yó- as their relative pronoun [363]. To get to know whether *k^wi/k^wo- or *(H)yó- should be reconstructed for the proto-language or to answer which of these two stems is older than the other in heading relative clauses is beyond the scope of my study [364]. Notwithstanding, it is worth mentioning that both relative stems are evenly used very frequently for the expressions of free-choice, not only by asyndetic repetition of the pronominal stem, but also by the combination of the pronominal stem *k^wi-/k^wo- and *(H)yó- along with particles *k^we and *k^wi. One option is that this common feature might be indicative of parallel developments according to a rather frequent typology. However, the fact that both indefinite/relative stems are deeply invested in the expression of free-choice might point to common patterns of combination inherited from the proto-language. Thus, the question that I would like to address now is whether we should consider *ke, as in Hitt. *kuiški* and Gr. κε, a reflex or, better to say, a genuine development of the enclitic *k^we.

Sideltsev & Yakubovich (2016:10) have argued that Anatolian languages (Hittite, Lycian, and Lydian) add the particle *ke to their relative stems as a formal strategy for the expression of free-choice [365]. In the case of Hittite –although there are marginal instances where *kuiški* functions as a free-choice indefinite, including examples where it has a universal interpretation– *kuiški* becomes either an existential or a negative polarity item [366]. I provide in Table 4 some Anatolian reflexes of *-*ke*. In the three languages a grammatical change from free-choice to negative polarity might have taken place.

[363] Cf. Luján (2009: 226), Huggard (2015: 4-6), and Probert (2015: 21-23).
[364] The result of our analysis will point to the fact that they might have been contemporary at a very early stage of PIE, as has already been argued by Hettrich (1988).
[365] Cf. Luraghi (1997: 27).
[366] For its different attestations and values, cf. Puhvel (1997: 224-5).

Table 4: Reflexes of *-ke* in Anatolian

Language	Nominal Free-choice	Negative polarity item
Hitt.	*kuiš-ki*	*kuiš-ki*
Lyc.	*tisñ-ke* (acc.)	*ti-ke, tihe*
Lyd.	*qesi-k*	*qesi-k, qi-k*

As a starting point for their discussion, Sideltsev & Yakubovich assess the Lycian indefinite pronouns. They assert that the particle **-ke* is allegedly in direct connection with the enclitic **-k^we* by dissimilation of the second labiovelar in the form **k^wis k^we*, reflex of which is Lat. *quisque*, as I already discussed. Oettinger (1983:182) was the first to suggest this dissimilation and proposed **k^wis ke* with a plain velar to be the proto-form behind Hitt. *kuiš-ki.* This view is rejected by Kloekhorst (2008 490) – and followed by Huggard (2015)– who suggests that the actual etymon behind this particle is a palatal velar stop, **-ḱi* and **-ḱo*. According to Kloekhorst, **k^wis ke* is contradicted by its Lycian cognate *tise* with a palatovelar reflex, assuming that Lyc. *tise* derives from **k^wis ke* [367]. However, he fails to give an explanation about how the addition of a proximate deictic particle to the interrogative/relative stem can contribute to the formation of an indefinite pronoun, as pointed out by Sideltsev & Yakubovich (2016), who offer an alternative explanation for the derivation of Lycian indefinites that would solve the issue of reconstructing **k^wis ke* for proto-Anatolian: **k^wi(s)-ke > tike* and **k^wi(s)-Ho > tise* [368].

Despite the phonotactic predicaments of the reconstruction of these indefinites, I follow Sideltsev & Yakubovich (2016) in assuming that both Hitt. *kuišk*i and Lyc. *tike* [369] derive from the proto-form **k^wi(s)-ke* [370] and might ultimately derive from **k^wi(s) -k^we*. Notice the fact that this Anatolian **-ke* has the same etymological derivation as the Greek modal particle κε [371]. I think that there are also functional

[367] Nevertheless, Kloekhorst (2008:491) still considers viable one more option: "If one insists on upholding the connection between Hitt. *kuiš-ki* and Lat. *quisque* and Av. *ciš-ca*, one should rather assume that **k^wis-k^we* as reflected in Latin and Avestan is a reshaped form itself, which arose out of **k^wis-ḱe* through assimilation. One could then assume that this assimilation is triggered by the formation **k^wis k^wis*".

[368] Cf. Kloekhorst (2018: 72).

[369] Cf. Lyc. B *kike* and *kize.*

[370] According to Sideltsev & Yakubovich (2016:34), the possibility of formally deriving Hittite *-ki*, Lycian *-ke* and Lydian *-k* from Proto-Anatolian (unstressed) **-ke* is in itself unproblematic.

[371] Cf. Dunkel (2014ii: 297).

reasons to believe that both particles are related and that **ke* should not be considered to be derived from the deictic **ḱe*, as it has been previously suggested, as it is also the case for Lat. *nun-ce* > *nunc*.

It is well known that **-k^we* is widely attested in non-assertive contexts: especially conditional, interrogative, and negations. In this way, a further argument to put in connection both particles (**k^we* and **ke*) is that, as mentioned, the Hittite relative *kuiš* can perform an indefinite function in conditional sentences headed by *takku*/*mān* [372] and in negative rhetorical questions marked by *nekku*, as in (18a-b).

(18)
a. MH/MS (CTH 147) KUB 14.1+ rev. 45
nu=wa=mu mān idālun memian ***kuiš*** *[mema-i]*
"If anybody tells me a bad word"

b. CTH 374.2.A: KUB 36.75 ii 13–14 (OH/MS)
ūk=za nekku DINGIR-YA tuk ***kuit*** *iya[(anu)]n*
"I have not done anything against you, have I?"

takku is traditionally considered a reflex of the connective Hitt. *ta-* plus the enclitic particle **-k^we* (Kloekhorst 2008: 484) [373]. There has always been the general opinion that the semantics of indefinite relatives and conditionals plus indefinite pronouns are very similar "if anyone ≈ whoever causes damage to this..." [374]. This connection can be seen at the morphosyntactic level not only in Hittite *nekku kuiš* "does not anyone…?", *takku kuiš* "if anyone", and *kuiški* "anyone, whoever", but also in Homeric Greek εἰ κε "if" /ὅς κε "whoever" [375]. I take this feature as the reason for the absence of the particle *-ki* (< **-k^we*) in some Hittite relative stems, given that, besides the non-veridical contexts at work, either the conditional *takku* or the interrogative particle *nekku* already creates the necessary conditions for *kuiš* to appear as an indefinite. However, as we know, *kuiški* would eventually take over a negative polarity

[372] Cf. Hoffner & Melchert (2008:149); van den Hout (2011:101-2). For other contexts in Hittite, cf. Sideltsev (2015). Something similar happens with the Gothic interrogative stem *hvo* (< **k^wo*) within a conditional clause (Matzel 1982-3:121; Wright 1910:132).
[373] In the section 4.5, I will suggest the instrumental nature of the connective Hitt. *ta*, which I argue it is not only present in the conditional conjunction Hitt. *takku*, but also in the negative marker Hitt. *natta*.
[374] As has been suggested by Huggard (2015) for Hittite.
[375] Cf. Lat**.** *neque*/*nec* that adds a negative condition in early Latin: *Twelve Tables, 5* and Cato *De agr.* 141, 4. Also, Goth. *nih* < PIE **ne-k^we*: "nor; if not" that introduces negative conditional sentences (*irrealis*).

function. Thus, in spite of being phonetically divergent reflexes of the same particle PIE *-*k*^{w}*e*, both -*kku* and -*ki* are invested in semantically similar contexts.

If we take a look at the Homeric data, we can see how the modal particle κε is mainly attested in conditionals, αἰ/εἰ κε, and indefinite relative sentences, ὅς κε. Additionally, structures similar to Greek can also be observed in NPhr. αι κε "if"/ ιος κε "whoever". Moreover, Old Church Slavonic shows the form *ašte* that is attested as a conditional conjunction "if" and also as a means of creating indefinite relative sentences "whoever", immediately following the relative pronoun, as in (19) [376]. In the latter function, it works as a perfect calque of the Greek indefinite relative ὅς ἄν [377].

(19)
Mar. 9, 42
iže ašte *siblazniti,*
*"*Whoever shall offend,…"

ašte, however, is not free from phonetic problems. As pointed out to me by professor Harald Bichlmeier and Marek Majer, the reconstruction **ōd-k*^{w}*e* for this particle indeed requires a quite *ad hoc* assumption concerning the phonological development $^{?}$**ōd-k*^{w}*e* > *ašte*. Meillet (1916: 108-110) assumes the possibility of some sort of metathesis **ōdk*^{w}*e* > **atke* > **akte*, by which one gets **kt* before front vowel. In Old Russian, particularly in the Novgorod birch bark letters, one also finds the spelling *atče*, which is derived from **atke*, without methatesis [378]. Thus, here I assume that proto-Slavic **atke* might have been the predecessor of *ašte* and a descendant of IE particle **ke*, which, in turn, is directly connected with PIE **k*^{w}*e*. In Table 5, I show the reflexes of **ke* (from **k*^{w}*e*) in some IE languages.

Table 5: PIE *k*^{w}*e* and *ke* as a later reflex in the IE languages

PIE **k*^{w}*e* (conditional-indefinite)	Hitt. -*kku*	Lat. -*que*			
IE-Anatolian * *ke*	Hitt. -*ki*, Lyc. -*ke*	Lat. -*ce*	Gr. -κε	I.Iran -*ca*	OCS **ke*

[376] Cf. Nandris (1959: 205), Berenguer (2000:460), and Klein (2011: 146).
[377] Cf. Also *eliko ašte* = ὅσοι ἄν. The Armenian and Latin in New Testament versions attest similar constructions. In the Latin version, the free-choice indefinite *quicumque* is utilized. However, we must be cautious about how closely Old Church Slavonic, Gothic and follow the Greek pattern texts. I am interested here, though, in the morphological forms employed for delivering the free-choice meaning through relative clauses.
[378] See Berenguer (2000:460-61) for a lengthy discussion of the different upheld reflexes of *ašte* in modern Slavic languages. Also cf. Dunkel (2014ii: 703).

Regarding the conditional function performed by *k^we/*ke*, Wackernagel (1942:1-5) argues that *k^we was able to introduce subordinating sentences such as conditional clauses [379]. Parallel to this, Gonda (1957:51) and Klein (1985: 240-250) assert that, in fact, there are cases where the connection between sentences provided by *-ca* is similar to the one observed between protasis and apodosis in conditional structures [380]. West (2011:88) also acknowledges this function for OAv. *-cā* [381]. See (20) for examples.

(20)
RV 2, 42, 1
*sumaṅgálaś **ca** śakune bhávāsi mā́ tvā kā́ cid abhibhā́ víśvyā vidat*
"And if you will be of good omen, bird, let no evil eye at all find you".

Y 30, 7
*ahmāi**cā** xšaϑrā jasaṯ manaŋhā vohū aṣ̌ācā /aṯ kəhrpəm utaiiūitīš dadāṯ ārmaitiš ąnmā.*
"But if one comes to it with power, good thought, and truth, then stability grants form, right-mindedness (grants) breath."

Notice that Dunkel (1982: 129-143) asserts that the generalizing and eventual (i.e. conditional and *irrealis*) values of *k^we could be derived from an indefinite function according to its relationship with the pronominal stem: *k^wo/i-. Nevertheless, he deems it impossible to derive the connective value from this same indefinite function. Therefore, we are dealing here with a pronominal *k^we that should not be related with the connective *k^we, although there have been some attempts by Berenguer (2000) to derive all semantic functions (connective and non-connective) from one morphological form *k^we [382]. He labels as "relational" the primitive functions performed by this particle in marking the relation between two different sentences, whose only

[379] Cf. Keydana (2018:2215). It has been suggested by Szemerényi (1985) that coordinating particle *-k^we might be derived from the instrumental interrogative-indefinite stem *k^we-h_1. In section 4.5 I will suggest that this might be the case for Indo-Iranian *$čā$ expressing conditional values. Moreover, notice that, crosslinguistically, among the functions of the instrumental semantic role it is coordination of elements. This would agree with Jasanoff's (2017: 227) suggestion regarding the instrumental nature of the connective Hitt. *ta*.

[380] Cf. also RV 1, 40, 6, RV 8,97,13, etc. According to Gonda, this *-ca* would be formally identical to the copulative *-ca*. I wonder, however, whether this IIr. *-čā*, allegedly functioning as a conditional conjunction, is actually a reflex of *-*ke* invested in indefinite relative constructions in both the *Rigveda* and the *Gathas*.

[381] Cf. also Y32, 1.

[382] According to Berenguer (2000), the connective value represents the most advanced stage of grammaticalization of particle *-k^we. It seems that Klein (1985) agrees with him in considering the conditional semantics of the *-ca* as as derivative of the subordinating function carried out by the enclitic particle.

surface relationship available at first would have been asyndesis. In Hittite, agreeing with Dunkel, Tischler (1977: 598-602) separates the connective function from the conditional function. However, Puhvel (1997: 203-5) and also Kloekhorst (2008: 483) assume the same etymology for both sematic values.

Lillo (1996: 315-19), due to functional reasons observed in the behavior of Myc. *qe*, suggests that particle κε must be a reflex of IE *k^we by dissimilation (**ou*-k^we, **nu*-k^we). However, he rejects the idea of a proto-form *(*H*)*yó-ke* because there are no good parallels among other IE languages and he connects Myc. *qe* to epic τε that is mainly found after relatives. I think his first assumption is not completely right. At a certain moment (Proto-Greek), there is a form (*H*)*yó-ke* that would have derived from *(*H*)*yo*-k^we, with particle *k^we already dissimilated. On the other hand, I think his second assessment is mistaken, since ὅς τε represents an inner-Greek development, which is a reflex of the connective-relational *k^we. Moreover, García-Teijeiro (1994:121-7) agrees that particle κε must be a reflex of IE *-k^we. Colvin (2016) also argues in favour of the particle *-k^we being part of the etymology of the modal particles κε, κεν, κᾱ and κ' [383]. I think he may be right when relating the "*κ*-forms" of the Greek modal particle to PIE *-k^we since it permits a comparison with the conditional grammar of other IE languages. Notwithstanding, I do not agree with him in his hypothesis on "*κ*-forms" being the result of a Greek mixture of reanalysis of word-final -*k* and the vestiges of an old topicalising/conditional force of the IE particle *k^we: εἰκ ἄν [384] and οὐκ ἄν. On this account, the modal particle Gr. κε/κ' would have had a dual origin: the allomorphs εἰκ οὐκ in conditional sentences, combined with the phonetically-conditioned variant κε < *k^we. However, I think the modal particle κε is a fully functional inherited particle–i.e. from PIE *k^we– that carries out similar functions in several IE languages such as Anatolian, Greek and Indo-Iranian.

[383] García Teijeiro (1994) and Lillo (1993) discuss the relationship between *-k^we and the conditional semantic value within modal particles. Also, Gonda (1954: 201) takes -τε as connecting conditional subordinate clauses.

[384] εἰ + ἄν → εἰκ ἄν >> εἰκ > εἰ κ'.

Table 6: Conditional and indefinite functions of particle *k^we

Particles	Hittite	Greek	Italic	Indo-Iranian	??OCS/Arm.
*k^we (eventual-indefinite)	*takku* "if" (*-kku*) *nekku* *kuiški* "anyone" (*-ki*)	εὶ κε "if" **ὅς τις κε** "whoever" ὅς κε ὅς τις	Lat. *sei-ce* "thus" cf. Lat. *sei* "if" Lat. *quisque* "anyone" **Lat. *quicumque*** "whoever" **Osc. *pisi pumpe*** "whoever"	IIr.**ca* "if". Ved. *ced* "if" **IIr.*yá- ci/ka-ca** "whoever"	OCS *ašte* "if" ***iže ašte*** "whoever" < *(*H*)*yo-g*$^{(w)h}$*e -ōdke Arm. *ok*ʿ "anyone" ***or ok***ʿ "whoever" < *(*H*)*yos-k*^{w}*os-k*^{w}*e*
*k^we (relational-connective)		epic τε ; *-qe*/-τε "and"	*-que* "and"	*-ca* "and"	

As regards placing an indefinite pronoun after a relative for expressing an indefinite relative free-choice indefinite, the Tocharian languages do attest this strategy for the expressioin of free-choice. Relatives are identical to interrogatives, as in Hittite and Latin: Toch. A *kus-ne* [385] and Toch. B *$k_u$se*. Both derive from P.Toch. **kwäsæ* (< PIE **$k^w$is-so*), a compound of the relative stem and the demonstrative stem (Adams 2013:200). In Tocharian B, the indefinite can follow a relative or interrogative pronoun, as in (21). Thus, although this is an optional strategy, Tocharian B displays a pleonastic formation for the expression of free-choice: B ***$k_u$se ksa*** (nom.), ***$k_u$ce kca*** (obl.) "whoever/whatever [386].

(21)
PK-AS-6D-a6c
$k_u$ce kca *klyauṣi* *tuk* *klyeñci*
"Whatever he would hear, he would doubt it".

As shown in Table 6, the same proto-form has been proposed for Arm. *ok*ʿ by Meyer (2013:88) and Martyrosian (2010:299). Also similarly to Tocharian, Arm. *ok*ʿ is used together with the relative pronoun for the expression of indefinite relative clause: *or ok*ʿ > *vorɔk*ʿ "whoever" [387], as in (22). Cf. ὅς τις. Contra Martirosyan (2010), Kölligan (2006:110-121) has argued that the actual proto-form for the relative *o*(*v*) would have been **k^wo*-(*H*)*yó*- that arose in focal interrogative clauses of the type "who

[385] Pinault (2008b: 196): all relative pronouns in Tocharian A have the particle *-ne* added to them. Also cf. Toch. B *-nai* .
[386] In relation with the *$k_u$ce kca* form, Pinault (2008a: 547) has proposed PIE **k^wisk^{w}is* as the origin of the indefinite form *ksa*: PToch **k^{w^y}äsæ k^{w^y}äsæ* > **kwäsæ ksæ* > *kwäsæ ksā* >B *$k_u$sé ksà* > *ksa.*
[387] See Klein (1997: 197).

is it who?" and not from the simple relative *(H)yó-*. If we take for granted that (*H*)*yó-* was actually used in this construction and we agree with the phonetic development to *o* -, we could also reconstruct the collocation **(H)yo-k^{w}os-k^{w}e* for Armenian, as in Indo-Iranian: [*k^{w}os* INTERR] (*H*)*yó-k^{w}os-k^{w}e* [388]. In a similar line, Klein (1997:242) and De Lamberterie (2013:43) suggest that the actual proto-form of *ok‘* is **k^{w}os k^{w}e* and of *ik‘* **k^{w}id k^{w}e*. This idea might be further supported by the fact that there are no nominal (*any*-like) free-choice indefinites in Classical Armenian, since **k^{w}o/i-k^{w}e-*(*ne*) was already invested in the creation of a polarity-sensitive indefinites, but it would still provide its original value to relative clauses for the creation of free-choice relatives [389].

(22)
Mt 12.32
Ew ***or ok‘*** *asic‘ē ban zordwoy mardoy t‘ołc‘ í nma.*
"And whoever may say a word concerning (i.e. against) the son of man, it shall be forgiven to him"

Thus, I conclude that particle **k^{w}e* was a grammatical marker that provides non-veridical assessment to a clause, concretely to conditionals and indefinite relative clauses. This fact is connected to the similar semantics that both types of sentences share and would eventually point out to an inherited conditional-generalizing value of this particle.

4.4 Strong polarity items in Latin:

**k^{w}ó-h$_1$*> Lat. *quō*, **k^{w}í-h$_1$* > Lat. *quī*, and **k^{w}éh$_2$-h$_1$* > Lat. *quā* [390].

In this section I would like to provide some examples from Latin that support the idea I have been trying to put forward: the IE instrumental suffix, concretely *-h$_1$*, makes pronominal indefinite stem formations –either adverbs or indefinite pronouns– polarity sensitive elements. It has been traditionally accepted that the Latin ablative is originally formed by the syncretism of three different cases: P-It. ablative *-o-h$_2$-d*, the locative *-o-i*, and the instrumental -o-*h$_1$* (Weiss 2009: 202) [391]. What we see in Latin interrogative-

[388] This form should not be confused with the polarity item **k^{w}os-k^{w}e-ne > ok‘* "any", as suggested.
[389] As I have asserted already, the semantic change from free-choice to negative polarity item is not rare. Cf. Hitt. *kuiški*.
[390] Also cf. *quīcum* "with someone/something", Lat. *quīne* > *quīn* "why not?; lest", Lat. *nēquit-ia, nēquit-er* "miserably"
[391] Weiss (2009) and Fortson IV (2011: 211) suggest the instrumental *-eh$_1$* to be the source of the Latin adverbials such as *valdē*, *rectē*, etc.

indefinite based adverbs is actually the remnants of instrumental endings that have been transmitted to Latin as old ablatives.

In (23), I provide examples of Lat. *quō* "to any place " [392], which is mainly present in negative as well as conditional contexts.

(23)
a. Cic. *In Verrem*, 2,5,45,1
*qui si **quo** publice profisceris*, *praesidi et vecturae causa sumptu publice navigia praebentur*
"Because, if you were going to any place on account of the State, ships were given to you from the public funds in order to protect you and transport you".

b. Plaut. *Menaechmi*, 327
*proin tu **ne quō** abeas longius ab aedibus*.
"Therefore, may you not go further away from home" in *quīcum* "with someone/something"

Lat. **k^{w}í-h_1* > *quī* "how" [393] (cf. Alb. *si* "how" [394]) is also an old ablative that is also derived from an IE instrumental. It is found in the adverb Lat. *nēquīquam* (Pl. +) "in vain" in univerbation with negation and the polarity sensitive suffix *-quam*, as in (24). Lat. *quī* is also attested in Lat. *quīne* > *quīn* "why not? ; lest" along with negation and also in the univerbated formations, the nominal *nēqui-tia* "worthlessness" [395] and the adverb *nēqui-ter* "miserably".

(24)
Plaut. *Amphitruo*, 835
Alc. *Vera dico, sed **nēquīquam**, quoniam non uis credere.*
"I speak the truth, but in vain, because you do not want to believe me"

In principle, **k^{w}e-* formations are also attested conjoined with an instrumental suffix as in Lat. *quā* (< **k^{w}éh$_2$-h_1*), although this form may, in fact, reflect a secondary formation in opposition to **k^{w}o-/k^{w}i-* stem and modeled after *quī*/*quō*. Lat. *quā* may have been grammaticalized later on with a local/modal nuance as a polarity sensitive indefinite invested in non-veridical contexts. This form is traditionally taken as a feminine ablative and has a local meaning in the phrase *quā (re)* "in what place?" [396].

[392] Cf. García Ramón (1997: 113-141) for the relation between instrumentals and adverbs of direction.
[393] Fortson IV (2011: 211)
[394] Curtis (2018: 1807).
[395] Cf. Gr. οὐτιδανός.
[396] Cf. Narrog (2009) for the spatial values of the instrumental case.

I consider that this ablative indefinite of instrumental origin is consistently used as a polarity marker. When used as an indefinite adverb, *quā* always goes with negation as in Lat. *ne quā* "in no way". See (25). As an independent negative indefinite, we have Lat. *nēquā-quam* "by no means" [397] with the addition of the suffix *-quam*, as in (26).

(25)
Ter. Adelphoe, 626
fieri potis est ut ***ne quā*** *exeat*
"It is possible that this does not work in any way"

(26)
Plaut. *Casina*, 534
nunc adeo ***nēquāquam*** *arcessam, ne illis ignauissumis liberi loci potestas sit, uetulis ueruecibus.*
" Now by no means I will invite them, so that there is no possibility of a place without restrictions for those lazy, old blockheads"

The suffix *-quam* is also present in the polarity item Lat. *quis-quam* whose distribution we already discussed in section 4.1. The etymology of this suffix has been amply discussed. There is no common consensus as where exactly this allegedly indefinite suffix derives from. Dunkel (2014i: 138 fn 6), following Schmidt (1988), suggests to take the accusative-like suffix *-m* as an instrumental adverbial ending added to an old instrumental form derived from the IE nominal *ā*-stem, **-eh_2-h_1* [398]. We have already seen that instrumentals are quite often employed for the creation of polarity sensitive elements. Dunkel (1997:70-74) already suggests that the adverb *quam* "in what way, how?" actually contains an instrumental *-ā́m* and he connects it with Hitt. *mān* "in what way, how?", whose original value as an adverb of manner is clearly seen in Hitt. *natta man-ka* "not anyhow, not at all" (= Lat. *nē-quam* and *nákīm*). Dunkel (2014 ii: 460 fn 40) points to the probable replacement of *k^wene* (cf. Ved. *caná*, Go. *-hun*) by the compound suffix **-eh_2-h_1-m*. I believe that such replacement is unnecessary, since, as we have seen in Greek and Latin, there are many instances of the single instrumental suffix *-h_1* working as a fully operational polarity marker. Nevertheless, I agree with Dunkel and Schmitt that the *-m* suffix is not an accusative, but an instrumental suffix, in this case employed as recharacterization. Therefore, I see in the suffix *-quam* the instrumental ending of the indefinite **$k^we$$h_2$-$h_1$ > quā-*, with a

[397] Also, Cf. Lat. *nēquam* "without value"
[398] Cf. Beekes (2011:200) and Schrijver (1991: 460).

long *ā* that is shortened before final *-m* [399] and that can be safely reconstructed when compared to Os. *paam*, with a monosyllabic ending unshortened. Thus, *-quam* would have been eventually added to the indefinite Lat. *quis*. It appears that the Latin indefinite system needed an overt marker of polarity elements, so it resorted to the suffix *-quam*, which already included a polarity sensitive element. As we saw in section 4.1, Lat. *quis* is attested only in non-specific/affective contexts such as negation, interrogatives, and conditionals (Bertocchi et al. 2009:31-34). Thus, Latin deploys *quisquam* to carry out functions of a polarity indefinite.

4.5 Instrumental suffixes and their relationship with negative markers and conditional conjunctions

I already discussed in the chapters on Greek and Indo-Iranian the employment of the instrumental ending *-h_1* [400]in the renewal of negative markers and how, at the same time, it triggered negative attraction between standard negation and the interrogative-indefinite stems that ultimately resulted in negative absorption, by which the indefinite stem was incorporated into the standard negation. Here I provide some other instances of this phenomenon attested in Italic (Latin and Oscan) and Albanian. As can be seen in Table 7, Armenian and Albanian negative markers portray the loss of the negative marker and the transfer of negation or, better to say, of its negativity to the interrogative-indefinite stem. In the case of Greek, it is the phasal adverb plus the indefinite stem that becomes the standard negation. Notably, Oscan also makes use of this reinforced negative as its standard negation. Moreover, it should be noted that Lat. *nequī-* is different from Latin indefinites such as **ne-íh$_1$-k^{w}i-* > OLat. *nei-quis* and **ne-éh$_1$-k^{w}i-* > Lat. *nē quis* = Osc. *nipis*. The same applies to Indo-Iranian where we also find negative indefinites Ved. *náki-* and *naēci-* "no one" that are different from the negative adverbs [401].

[399] Cf. Weiss (2009:233).
[400] Alternatively, with instrumental *-t*.
[401] The instrumental case can also be seen in ONord. *hvī* "how?" and ORuss. *či* "whether, if".

Table 7: NEG- *k^{w}í-h_1* in other IE languages

PIE **ne*	proto-forms		aftermath forms
Greek	**ne-$h_2$oyu-k^{w}í-h_1*	*o-u-ki-*	οὐκί > οὐκ $_{SN}$
Armenian	**ne-k^{w}í-h_1*	**č‘*	*o-č‘ > oč‘ / č* $_{SN}$
Albanian	**ne-k^{w}í-h_1*	**tš*	*s’* $_{SN}$
Vedic	**ne-k^{w}í-h_1*	**nákī-*	*nákī-m* $_{NADV}$
Avestan	**ne-íh$_1$-k^{w}í-h_1*	**naēcī-*	*naēcī-m* $_{NADV}$
Oscan	**ne-íh$_1$-k^{w}í-h_1*	**neipī-*	*neip* $_{SN}$
Latin	**ne-éh$_1$-k^{w}í-h_1*	**nēquī-*	*nēquī-quam* $_{NADV}$

In the same line, I argued how the instrumental suffix *-h_1* is also present in the prohibitive marker **me-h_1*, making it a polarity sensitive negative marker that tends to appear in non-veridical contexts. As shown by Chatzopoulou (2019), Gr. μή is a polarity item only present in non-veridical contexts such as wishes, conditionals, purpose clauses, directives, and yes/no questions, whereas οὐκ can preferably be in sentences such as assertions where the speaker’s commitment to the truth is being expressed. Other prohibitive markers of the same etymology display the same behavior: IIr. **mā*, mainly present in prohibitions and wishes [402], Alb. *mos*, found in conditionals and yes/no interrogatives, and Arm *mi* that is also present in prohibitions and negative wishes. Even though Hitt. *lē* (<**le-h_1*) [403] is a different etymon, it shows this same feature: it can only occur in prohibitions and wishes. According to Plötz (2017:4) **mē* < **meh$_1$* would have been a former emphasizing particle, the actual prohibitive negation lost via Jespersen Cycle. **meh$_1$* would derive from PIE **mo-* (Dunkel 2014ii: 518ff) and some of its reflexes would have been Arm. *imn* “something” and Hitt. *manka* “in any way”. In his discussion Plötz implies that **meh$_1$* “how, why” would have been an instrumental singular acting as an adverb of manner “in anyway” [404] functioning as a reinforcement of the negative marker, just like **-k^{w}í-h_1*.

These non-veridical semantics displayed by prohibitive markers are also shared by other negative markers such as Lat. *nē* (< **ne-éh$_1$*), which also tends to be present in prohibitions, whishes, and purpose clauses. Similarly, Lat. *nī* (<**ne-íh$_1$*) appears in similar non-veridical contexts: interrogatives [405], prohibitions, purpose clauses, and conditionals –in the latter case, to the extent of being univerbated with the conditional

[402] Also purpose clauses, OP *mā-taya*.
[403] Kloekhorst (2009:523) and Plötz (2017).
[404] NEG + **meh$_1$* + verb “not any way do/might/will you X” or, alternatively accented, **méh$_1$* + verb + “how, why” are/can/will you X = don’t X!”
[405] Cf. Lat. *quid nī*? “why not”.

conjunction, *nīsi* > *nisi*, Osc. *nei suae* "unless". A possible cognate can be found in Go. *nei* which, in spite of being attested only once, appears in an interrogative clause. Finally, it should be noted that Ved. *néd* [406] "lest, in order not to" (IIr.**nai-d* < **ne-íh₁*-) can be used in purpose clauses. Thus, all these negatives markers, **me-h₁*, **ne-éh₁*, and **ne-íh₁*, have the common feature of being present in non-veridical contexts. Therefore, I propose that this non-veridical sensitivity clearly evident in these negative formations is morphologically marked by *-h₁*, which, as we have seen, also triggers polarity sensitivity in indefinite adverbs. In Table 8, I provide a list of the negative markers discussed above.

Table 8: Polarity sensitive negative markers

IE	Greek	Latin	Indo-Iranian	Other IE
me-h₁	μή		IIr.**mā*	Arm. *mi* Alb. *mos*
**** le-h₁***				Hitt. *lē*
****né-éh₁***		Lat. *nē*		
****né-íh₁***		Lat. *nī*	IIr.**nai-* Ved. *né-d/t*	Go. *nei*

In the same way, instrumental suffixes (*-h₁*, *-t*, *-m*, *-b^{h}i*) can also be observed operating in the etymology of some conditional conjunctions, another type of non-veridical operator: *takku* < **tó-h₁ -k^{w}e* (*-h₁*) (see below), *mān*, *maḫḫan* < **mā́m* < **mé-h₂-m* (Dunkel 1997: 72-4), Goth. *jabai* <**(H)yó-bho-(h₁)-h₂-i̯* (Dunkel 2014ii:2014), Goth. *niba* "if not" < **néb^{h}o-h₁* (Dunkel 2014ii: 121), Ved. *yadī* < **(H)yó-d-íh₁* (Dunkel 2014ii: 379), Ved. *ced* < **k^{w}e-íh₁-t* (see 3.1.1), Lat. *sī* < **se-íh₁* (see below), Goth. *jaþþē* < **(H)yód-te-h₁* "even if" (see below) and *IIr. *cā* < **k^{w}e-h₁* (see below and 4.3.).

Finally, I would like to briefly discuss the etymology of the Hittite standard negative marker *natta* "not" [*na-at-ta*; *Ú-UL*] [407]. On the one hand, it is usually admitted that the Hittite negation portrays an *o*-grade ablaut of PIE **ne* (Kloekhorst 2008:597; Dunkel 2014ii: 514; 530-1), given that /a/ < *o (Melchert 1994: 105) [408]. Even though there is no compelling evidence for the preservation of *-h₁* in PA in any positions (Melchert 1994: 65), in *na-* (PA *nṓ-* < IE *ne-oh₁ /no-h₁*) there seems to be an

[406] Notice that in Avestan, *nōiṯ* is usually the negative marker for conditionals.
[407] According to Dunkel (2014ii: 532): *natta* < **nó th₂ eh₁*.
[408] And not /i/ < **e* in closed syllable or *e* < **e* in open syllable (cf. Melchert 1994: 101, 139). I wonder whether the /o/ in *na-* could also be derived from *ne-oh₁*.

instrumental suffix -h_1 embedded in the first element of the negative compound, as also shown in the other attested Hittite negative formations: *nāwi* "not yet" < **nó-h_1-$h_2$yéwi-* "not in life", *naššu* "or" < **nó-h_1-su* "[??]not so" [409]. Furthermore, the presence of -h_1 directly conjoined with the negative marker is a crosslinguistically widespread phenomenon in the IE languages: **ne-h_1/ *ne-éh$_1$* and **ne-íh$_1$* [410]. On the other hand, the second element of the compound (-*tta*) could represent a) a *fortis* consonant /t:/ of an instrumental ending -*ta* [411] (usually seen in OH; see below), or b) a *fortis* consonant /t:/ of the connective *ta* [412], which, in turn, may represent the instrumental (**to-h_1*) [413] of the IE demonstrative **so*, **to-* [414] or the ending **-th_2-éh$_1$*, also present in Indo-Iranian modal adverbs (-*thā́*, as in Ved. *kathā́ / kathám* [415], OAv. *kaθā* "how?, in any way") [416]. As pointed out by Kloekhorst (2016:242-3), the fact that the cluster *-TT- has not undertaken assibilation (i.e. > -TsT) points to a long, *fortis* stop which is rendered in Hittite and Cuneiform Luwian as a geminate cluster -*tt*- (= /t:/). Therefore, given the *fortis* nature of the dental stop and the oddness of a geminated stop in a word final instrumental suffix **-tta*, I consider b) and the connection with the connective *ta* to be the most likely alternative.

Even though Dunkel (2014ii: 775) considers *ta* a temporal adverb from a non-demonstrative particle **to*, I believe there are several arguments supporting the assumption that Hitt. *ta* indeed reflects an instrumental from the IE demonstrative **so*, **to*. First of all, there are plenty of instrumental adverbs/conjunctions that show a demonstrative origin with modal (manner) as well as with locative functions (point of

[409] But *nekku* "is it not?" (negative rethorical question) < **ne-k^we* (Cf. Dunkel 2014ii).
[410] For indirect evidence of the instrumental suffix -h_1 being employed in the creation of new Hittite nominals, cf. Widmer (2005:200-2): *nakkī-* "important".
[411] Cf. TA/DA signs (*atta*/*adda*: "father"). Voiced and voiceless distinction cannot be based on cuneiform signs. According to Melchert (1994: 60), while the contrast of voiceless vs. voiced stops is retained in PA, the pattern of occurrences has been consistently altered in the historical Anatolian languages. However, Hittite stops have neither voiceness nor aspiration as distinction features, but it is a matter of consonantal length (Kloekhorst 2008: 16). Also cf. Kloekhorst (2016; 2018:77) regarding length distinction in Proto-Anatolian stops.
[412] Cf. Watkins (1962): *natta* < *ne* + *ta*. Dunkel (2014ii: 182): *ta* < **th$_2$* as in Hitt. *kuwatta* "where to" = IIr. -*thā́*.
[413] Cf. Jasanoff (2017:227).
[414] Watkins (1963): OIrish *no, to, se*. Contra Watkins, Ludquist & Yates (2018: 2101) consider the connection of Hitt. *ta* with the demonstrative pronoun as "untenable".
[415] Cf. *evā́* > *evá* > *evám*
[416] This would not be possible if we assume the allomorphism of -*d* #V//-h_1 #C, according to Kortlandt effect (Garnier 2014).

time): from **to*, YAv. *tā* [417] "thus", Av. *təm* "then", Ved. *téna* [418] "in that manner, thus", Ved. *tā.dr̥ś-* "so looking" [419], Gr. τῷ "then, in this wise", Gr. τηνίκα "then, at that time". Lat. *tum* [420] "then", Lat. *tam* [421] "so". Also from the demonstrative base **so*: Gr. ὥς [422] "thus", Umbr. *sopir* [423] "if anyone" (=Lat. *si quis*), and Lat. *sī*, *sīc* (OLat. *sei*, *nisei*). The latter form entails some explanation. Lat. *sī* (< PIt. *sei*) is usually taken as the locative singular ("in this" > "thus") of the demonstrative **so*, **to* (de Vaan 2008: 561; Untermann 2000: 218, 667). Also cf. Osc. *svaí* < **sṵai.* However, Beekes (2011: 294) already suggests that Lat. *sī* might contain an old pronominal instrumental singular, maybe the result of the combination of two stems: the demonstrative **h₁ei-* [424] plus the **s-* of the demonstrative **so*, **to* [425]. Contra Beekes, Dunkel (2014ii: 740) reconstructs **sé-i̯*. However, I suggest that Lat. *sī* derives from the ablaut form **se* of the demonstrative (attested in the collective [feminine] **seh₂-*) plus an instrumental suffix *-íh₁*: **se-íh₁ > sī* [426]. The full-grade **se* can be explained in the same line as Beekes (2011) and Cogwill (2006). According to the latter, the *o*-grade forms are the only proper formations within the **so*, **to* paradigm and, therefore, **se* forms would be the result of analogy after the anaphoric pronoun **(h₁)i-* /**(h₁)ei-* / **(h₁)e-*. For the reconstruction of the laryngeal, we must take into account formations such as the conditional **so-h₁* > Umbr. *so* "if" and the negative marker **ne-íh₁* > Lat. *nī*. Thus, both Lat. *sī* and Lat. *tum* points to the demonstrative instrumental nature of Hitt. *ta*, whose syntactic behavior is similar to its Latin cognates, as we will see below. Finally, one last piece of evidence comes from its Gothic cognate *þē* (< PGerm. *þa*) that participates in the formation of similar morphological forms as Hitt.*ta*. This instrumental demonstrative is found in the temporal/resumptive adverb Goth. *biþē* "then" (cf. Hitt. *ta-* "then"), in the conditional conjunction Goth. *jaþþē* "even if" (cf. Hitt. *takku* "if")

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[417] Dunkel (2014ii: 789 fn 47): either from **té-h₁*, **tó-h₁*, or **teh₂-h₁*.

[418] Remodelled after Ved. *enā́* < (from *ana-* "this there" + *ā́* (instr.sg)) (Gotō 2013:71).

[419] Cf. Kümmel (2018: 1901) for the IIr. demonstrative inflection **sá-*, **tá-*.

[420] Lat. *tum* is traditionally taken as the accusative singular of the demonstrative **so*, **to* (Cf. Dunkel 1997: 75, as an adverb of extent of time). Contrary to this view, I reconstruct IE **toh₁-m > tum*, with an instrumental *-m* as recharacterization. Cf. Myc. *to-me* < **to-sm-eh₁*, an strenghtening of *tó-h₁* (Dunkel 1997:76).

[421] Dunkel (1997: 75-6), after Schmidt (1988), explains Lat. *tam* as an *m*-instrumental adverb.

[422] Beekes (2010: 1683): **so-h₁.*

[423] Dunkel (2014: 740 fn 55): **so-h₁.*

[424] Gr. εἰ probably is also from the demonstrative **h₁ei-* (Beekes 2010: 379). Cf. εἶτα "then, thereupon".

[425] Beekes (2011: 226).

[426] Therefore, agreeing with Dunkel in the reconstruction of the first element **se* and with Beekes in the instrumental nature of this conjunction.

and, last but not least, along with the negative marker in Goth. *ni þē-ei* "not that" (cf. Hitt. *natta* "not") and in the phrase *ni þē haldis* "not more than that; by no means" (Wright 1910 [1966]: 125) acting in the last two cases as a polarity item due to its instrumental nature.

Moreover, the compositional nature of Hittite negative marker (*na-t-ta*) can be further supported by the form Hitt. *nat* [*na-at*](x3): /*nat aruwaizzi*/ "does not bow" [427], which, according to Melchert & Hoffner (2008: 33 fn 55), could be an old shorter variant of *natta*. Notably, Melchert & Oettinger (2009:55) propose *-*oh₁-ad* as the proto-form for the Hittite instrumental ending -*t* (cf. Lat. -*ōd*) [428], also found as -*it* (with epenthetic *i*) and -*d*/*ta*, the latter being commonly found in Old Hittite (Hoffner & Melchert 2008:70): e.g. *kardit* "with heart" and *wedanta* "with water". Thus, Hitt. *nat* could represent an instrumental recharacterization by means of the instrumental suffix -*t* (*noh₁-t* or *ne-óh1-t*) also seen in Palaic *nī/nit* < * *ne-íh₁-t* and, probably, also in Lydian, *nid*, similarly to Indo-Iranian **naḭ-t* [429]. Thus, we must assume a previous stage in Hittite where the negative marker was recharacterized by an instrumental -*t* (*na-t*) and a second stage where the negative marker was strengthened by the particle *ta* of instrumental origin (**na-ta* > *natta*).

In Hittite, *ta*, *šu*, and *nu* are additive conjunctions or sentence initial connectors. Hitt. *ta* can connect two independent main clauses, two subordinate clauses, or a subordinate clause (conditional, relatives, result, temporal) to a main clause (Hoffner & Melchert 2008:393-5). Hitt. *ta* is syntactically equivalent to Gr. τότε "then, in that time". Hitt. *ta* can function as a marker of the last sentence in a piece of discourse dealing with one topic. Both *ta* and *nu* can work as markers of an apodosis [430]. Thus, both Gr. τότε and Hitt. *ta* display a resumptive use after conditional clauses "if….then…": εἰ…τότε and *takku*/*mān*…*ta.* This correlative conditional-resumptive construction can also be observed in Lat. *si…tum* or in Av. *yezi…təm.*

[427] KUB 44.63 + KUB 8.38 ii 21-22. Cf. *nat*: *natta*, *kuwat*: *kuwatta*.

[428] Another possibility is that this dental stop derives directly from a pronominal inflection such as neuter, singular *-*d*.

[429] Some more evidence comes form Celtic languages: Welsh *nyt*, OBret, *nit*, probably derived from **ne-to* (Dunkel 2014ii: 533). Also cf. the indefinite adverb Hiit. *kuwat* "how, why?; anyhow" and *kuwatta* "where to; somewhere". In the latter, we find an instrumental particle (*ta*) added to the pronominal base *kuwat* for expressing a spatial meaning (allative), which is among the values derived from the instrumental-associative case.

[430] The particles *ta* and *šu* are being replaced by *nu* from the late OH period onwards, and already in MH texts *nu* is the only conjunctive that is properly used (all MH and NH instances of *ta* are in formulae).

Thus, *ta*, as a de-instrumental particle, complies with one of the possible values allotted to the instrumental case, which is that of coordination. Moreover, as proven by Weitenberg (1992), the fact that *ta* only appears with verbs in the present tense, whereas *šu* with verbs in preterite tense, perfectly agrees with the non-veridical semantics observed in *ta*, especially when employed in the formation of elements such as indefinites (Hitt. *kuwatta*) and conditional conjunctions (Hitt. *takku*) [431].

Thus, *natta* would exemplify one more case of a negative marker being reinforced by instrumental suffixes. Therefore, I consider the proto-form ***ne-oh$_1$/no-h$_1$ + to-h$_1$*** (*na-ta*) to be the source of the Hittite negative marker *natta*: negation + instrumental suffix -h_1 added to an *o*-grade negative marker (**no* + h_1) or a thematic instrumental added to the inherited negative marker (**ne* + oh_1) + *ta*, a connective particle of instrumental origin derived from IE **so*, **to*, all of this after a previous stage where *nat* was the Hittite negative marker with an instrumental -*t* as recharacterization.

As we have seen, both standard and non-standard negation, prohibitive markers, conditional conjunctions, and indefinite adverbs are in close connection with instrumental suffixes.

4.6 Summary

In this chapter, I have described the indefinite systems (concretely, the ontological category of person) of other IE languages. Latin proves to have a rich indefinite system that makes use of several prefixes and suffixes added to the indefinite stem **k^{w}i*- for marking the different indefinite functions: negative polarity (*quisquam*), free-choice (*quisuis*, *quislibet*), irrealis (*aliquis*) and specific indefinites (*quidam*, *aliquis*). Moreover, Latin shows other means of expressing the free-choice semantics: Latin has the reduplicated pronominal *quis quis*, the indefinite relative *quicumque*, and the indefinite *quisque*, which eventually evolves into a fully-functional universal quantifier. Moreover, Latin uses the bare interrogative *quis* as a polarity indefinite when attested within non-veridical contexts such as negation, conditionals and interrogatives.

Hittite also displays different series of indefinites: universal (*kuišša*), nominal free-choice (*kuiš imma*, *kuiški*), relative free-choice (*kuiš* [*imma*] *kuiš*), negative polarity (*kuiski*) and specific quantifier (*kuiški*). As in Latin, in Hittite bare interrogatives work as polarity items when attested with negation, conditionals, and interrogatives.

[431] There could be a possible parallel in a proto-form **k^{w}e-h$_1$* that would have IIr. *čā* "if" and Hitt. -*kku* "if" as reflexes.

In turn, Armenian shows a strict polarity distribution with two distinct indefinite series: polarity items (*ok*‘/ *inč*‘) and non-specific/existential (*omn*/*imn*). For free-choice, it places the polarity indefinite *ok*‘ / *inč*‘ after a relative pronoun. On the other hand, Gothic happens to use particles for marking the different indefinite series: negative polarity item (*ƕan-hun, ains-hun*) and inherited free-choice formations acting as distributives (*ƕaz-uh*, *ƕarjizuh*). Like Latin and Hittite, Gothic also uses the bare interrogative *ƕas* as a polarity item within negative and conditional contexts.

In section 4.2, I assessed the ‘indeterminate’ correlative constructions in Hittite that are in direct connection with relative-correlative constructions also attested in other IE languages, which, in turn, are typologically related to conditionals. In section 4.3, I proposed that this relationship was marked in the IE languages by means of the particle *-k^we and its investment in conditional and indefinite relative (free-choice) sentences. I concluded that this particle *-k^we and its reflex *-*ke*, indeed has a conditional/generalizing value.

In section 4.4, I singled out Latin polarity adverbs that have as a common feature the presence of the instrumental -h_1 in its morphology what makes them prone to be connected with non-veridical contexts such as negation, conditionals and interrogatives. The formations *quī*, *quō*, and *quā* were dealt with. I suggested that, in the case of the latter, -*quā-m* was utilized as a polarity overt marker conjoined with the bare interrogative *quis*. In section 4.5, I dealt with formations of the NEG- k^wi- type that would have undertaken negative attraction with the aid of the instrumental suffix -h_1. I discussed the nature of prohibitives and of other non-standard negative markers that show polarity sensitivity in their distribution thanks to the instrumental suffix -h_1 that makes them sensitive to non-veridical contexts. I also mentioned the use of instrumental suffixes in the formation of new conditional conjunctions. Finally, I commented on the etymology of *natta* and how this negative marker may reflect a compound of instrumental suffixes (-h_1) and of the de-instrumental connective particle *ta* –in the same way as Goth. *þē* and some other IE instrumental demonstratives employed in similar morphological constructions: **ne-óh$_1$/nó-h$_1$ + to-h$_1$*.

CHAPTER 5: Negation and indefinites in Achaemenid Elamite

5. Achaemenid Elamite

5.1. Achaemenid Elamite: Corpus and Chronology

Elamite is an isolate, non-Indo-European language that was spoken in the southwest of Iran between at least the 23rd and the 4th century BCE. A connection with the Dravidian languages has been suggested and there have even been attempts to reconstruct a Proto-Elamo-Dravidian or Proto-Zagrosian language family[432]. However, most scholars nowadays have abandoned this view. Elamite is an agglutinative language that has a cuneiform script. It represents an adaptation of the Mesopotamian script (Summerian and Akkadian), which must have been developed already by the middle of the 3rd millenium. Its first textual evidence is the Treaty of Narām-Sîn dated around 2260-2223 BCE and more texts of inscriptional nature continue to be present in southern Iran off and on until the beginning of the Achaemenid period. Old Elamite and Neo-Elamite texts are badly documented. On the contrary, the best attested stages of Elamite are the Middle Elamite, which is usually considered the classical period, especially due to its textual tradition, and the Achaemenid Elamite period, which represents a partially restructured variety of Middle and Neo-Elamite carried out by Iranian scribes, as can be observed in its grammatical peculiarities in contrast to previous stages of the language. In Table 1, I provide a periodization of the Elamite language according to the textual evidence for each period.

Table 1: Periodization of the Elamite language

ELAMITE	**Old Elamite** 2600-1500 BCE.	**Middle Elamite** 1500-1000 BCE. (Classical Elamite)	**Neo-Elamite** 1000-540 BCE.	**Achaemenid Elamite** 540-330 BCE. (Late Elamite or Irano-Elamite)

It must be taken into account that Achaemenid Elamite is one of the administrative languages of the Achaemenid Empire, together with Aramaic and, to a lesser extent, Akkadian (Babylonian) and it is found in two distinct registers: namely, in royal inscriptions and in administrative archives. Most royal inscriptions (c. 521-338

[432] Cf. McAlpin (1974, 1975).

BCE) are trilingual (Achaemenid Elamite, Old Persian, Neo-Babylonian) and the most important one –and the longest– is the Bīsotūn inscription (DB), which was sent to be carved by king Darius I in the northern provinces of Khuzistan and Fars around 521 BCE. Achaemenid Royal Inscriptions extend form Darius's reign (522-486) to Artaxerxes III's one (359/358-338/337), although most of them can be confidently dated between 521 and 465 BCE.

On the other hand, Achaemenid administrative archives amount more than 90% of the Achaemenid Elamite corpus. Babylonian being the administrative language of most part of the 2nd millennium, the first Elamite administrative texts come from ancient Anšan (Tall-e Malyān) around 1000 BCE, by the end of the Middle Elamite period. From the Achaemenid period, archives have been found in Susa [433] (c. 590– 555 BCE), Old Kandahar (c. 500-350 BCE), Persepolis (c. 510-460 BCE), and Bactria (c. 353-324 BCE). In the first three archives, most tablets are in Elamite. The most important archives are the administrative archives of Persepolis: the Treasury archive (PT), dated around 492-457 BCE with 750 tablets, and the Fortification archive (PF), dated around 509-494 BCE with 20,000 tablets.

Stolper (2005: 20) states that Elamite was how Iranians communicated in writing, given that it was not until 521 BCE that an Old Iranian language, concretely Old Persian, was committed to writing. Notably, the Persian word for "inscription" is an Elamite loanword: OP *dipi-* < El. *tuppi*(*-me*)[434].

5.2 Multilinguism: Achaemenid Elamite and Old Iranian

The Achaemenid world represents the paramount outcome of the ethnogenesis of two ethnic groups, Elamite and Old Iranian, whose interaction –lasting for more than five centuries– might have resulted into language contact [435]. When Iranians arrived to the Iranian plateau, around 800 BCE [436], they found Elamite sedentary cultures in the Zagros foothills between Khūzestān and Fars. These settlements would last the entire Middle and Neo-Elamite periods. By the beginning of the Achaemenid period, there

[433] In Susa, a major corpus of Elamite texts of the Neo-Elamite period, ca. 625 BCE. is also found (Henkelman 2008).
[434] The connection with the Akkadian word ṬUPPU "inscription" has been traditionally accepted. Cf. Tavernier (2007b) for a different view.
[435] Potts (1999 309-53).
[436] Persians and Medes are first mentioned by the Assyrian records around 850-20 BCE. Around 700 BCE, Persians were already in control of Anšan, one of the major cities of the Elamite kingdoms.

must have been Elamite speaking communities still in the lowlands of Khūzestān around 540-520 BCE [437].

Map 1: Elamite and Persian territories

As mentioned, the linguistic proficiency of Achaemenid scribes, that is, the language in which a speaker is more skilled, must have been among the following three main linguistic branches: Elamite, Old Iranian (Old Persian, Median, or another unattested Old Iranian language), and Semitic (Babylonian, Aramaic, etc). As stated by Henkelman (2011: 586-7), among the scribes in the Achaemenid capitals, concretely Susa and Persepolis, there must have been a big group of Iranophones who wrote in a morphosyntactically restructured form of Elamite, and then two smaller groups, one composed by Elamite scribes whose style and hands connect them to the Susa Neo-Elamite scribes in the Acropole, and another even smaller group of Semitic scribes, Babylonian or west Semitic, allegedly not involved in writing Elamite. Thus, what it is observed in the trilingual texts dating from the end of the 6th century BCE onwards is the bilingualism of scribes or, at least, the involvement of several scribes with different native languages.

We must also bear in mind that multilingualism played a key role in the building of the administrative apparatus during the Achaemenid period. According to Tavernier (2018b: 316-7), the administrative tablets show the involvement of more than two

[437] Cf. Potts 1999 (2016).

scribes who would have been proficient in one or more of the languages mentioned above. For instance, Imperial Aramaic was the most important administrative language in the eastern regions, while Elamite must have been only the administrative language of Fars and probably also of Susiana. Thus, it should be stressed that Achaemenid Elamite was by no means the only administrative language at use during the Achaemenid period, since each regional area had its own administrative language. This was attained in the framework of a compromise between the previous local practice and the needs of standard communication of an empire. Therefore, the plurilingualism of the inscriptions, of the administration and of the people in the empire must be kept well separated [438].

Finally, regarding most trilingual inscriptions, it should be noted that it is Elamite that closely follows Old Persian syntax, with a lot of loans and calques. On the other hand, in the Bīsotūn Inscription, which is clearly a particular case, the Elamite version is the first one to be carved on the rock and the one that works as a model for both the Babylonian and the Old Persian versions [439]. As I will mention through this chapter, Iranian scribes employ Elamite as a written language. Therefore, what is observed in the Royal Inscriptions is the linguistic contact of a bidirectional nature: on the one hand, Elamite, as a language of prestige with a very long writing tradition, and, on the other, morphological as well as syntactic calques due to Old Iranian influence.

5.3 Negation and correlative negation in Achaemenid Elamite

The standard negation in Elamite is *in-* "not", to which nominal classifiers are added as suffixes. Elamite also attests a prohibitive marker Midd.El. *ani* /Ach.El. *anu* "don't", which is usually used with III conjugation of verbs with a durative aspect (Khačikjan 1998:49). In Middle Elamite and early Neo-Elamite periods negation was essentially nominal agreeing with the (pro)nominal form over which negation had its scope (Grillot-Susini 1987: 20; Tavernier 2011b: 328). With verbal formations, *in-* would agree with the (pro)nominal subject of the verb by the addition of nominal classifiers (Stolper 2004: 73; Tavernier 2011b: 335; Tavernier 2018a:433). The form *in-gi* "not I" (x27) is mainly attested in Middle Elamite, concretely in the Tchogā Zanbil

[438] For more detailed information about multilinguism in the Achaemenid Empire, see Tavernier (2008), Henkelman-Stolper (2009), Fear (2015), and Rollinger (2016).
[439] Although it was at first the only intended version, it has been recently suggested to me by professor Henkelman that it is probable that there was an Old Persian original for DB.

inscriptions dated to the reign of Untash-Napirisha (ca. 1340-1300 BCE). The form *in-ri* "not he/she/it" is only attested five times between the Middle and the Neo-Elamite periods. The other inanimate negative marker, *im-me* (x28), ranges from the Middle Elamite until very late into the Neo-Elamite period. However, already by the Middle Elamite period, negation starts to be expressed by an invariable marker *in-ni* [440], which would gradually replace the rest of the negative forms composed by other animate/inanimate classifiers [441]. By the beginning of the Achaemenid period, the use of adverbs rises (Grillot-Susini 1987:26) and the inanimate *in-ni* becomes the sole negative marker. See Table 2 for the distribution of the negative markers along with nominal classifiers.

Table 2: Elamite negative markers

Elamite Negation	1sg	2sg	3sg	3pl	Class *-t*	Class *-me*	Class *-n*
Animate PRONOMINAL	*in-ki/gi*	**in-ti*	*in- ri* *in-ra*	**in-pi*			
Inanimate NOMINAL					**in-ti*	**im-me* *um-me*	***in-ni*** ***in-na***

Elamite negation marks a sentential constituent on which the focus of negation is targeted. I provide in (1) some examples of the different attested negative markers. It seems to me that the gradual disuse of the different nominal classifiers together with negation is better explained by the influence of Old Iranian, which strictly exhibits the employment of one standard sentential negation. Thus, Old Iranian might have prompted Elamite to change from a constituent negation into a typically sentential negation placed as close to the verbal form as possible. Already by the Neo-Elamite period, inanimate negative markers, *in-ni* and *im-me*, have taken over the pronominal animate negation. In the Fortification tablets, there are examples without any kind of nominal classifiers, as in (1e).

(1)
a. EKI 74
in-gi *in du-nu-un-ku=mar*
NEG-1st it give = (indirect speech)
"I don't want to give it" (lit. Not I want to give it).

[440] Hinz & Koch (1987: 758-759).
[441] For Elamite negation, see also Grillot-Susini (2008: 67), Khačikjan (1998:49), Reiner (1969: 94), and Paper (1954:107).

b. EKI 34
im-me *du-ur-nah*
NEG-inanimate know
"I don't know [it]" (lit. I know not [it]).

c. EKI 38
in-ni *pu-ul-hu*
NEG destroy
"I don't destroy [it]" (lit. I destroy not [it]).

d. EKI 17
su-un-ki-ip ur-pu-ub-ba ak-ka$_4$-ra ú-pa-at ak-ti-ip-pa ***in-ri*** *hu-uh-tan-ra*
king = PL former =of anyone bricks glazed NEG-3rd (animate) make-PST
"Of the former kings no one had made glazed bricks" (lit. of the former kings not anyone had made glazed bricks)

e. PF 2935
SUNKI ik-ki-mar ir-pi ***in*** *pa-ra-š-da*
king=from before NEG travel-PST
"From the king, (a princess) have not travelled before"

Achaemenid Elamite has two distinct coordinators: *a-ak*, attested since Middle Elamite texts [442], and *ku-ud-da,* attested only in Achaemenid Elamite in both the Royal Inscriptions and the administrative tablets [443]. The latter has been considered a scribal device for marking OP *utā* (Gershevitch 1979). According to Zadok (1995), it is already attested as *ku-da* in the Neo-Elamite period (EKI 76:15). Henkelman (2011:619 fn 55) relates *ku-ud-da* with *ku-ut-ti-na* "in total; in addition" from the Neo-Elamite period as well. Syntactically, *ku-ud-da* is mainly used in correlative coordination of the type "not only…but also" (Quintana 2013:61), often in combination with the coordinator *a-ak*. The attested combinations are the following: *ku-ud-da…a-ak ku-ud-da*, *a-ak…a-ak ku-ud-da*, *ku-ud-da…ku-ud-da*. If considered individually, both coordinating conjunctions seem to have the same syntactic distribution as OP *utā*.

In the Bīsotūn Inscription, of the four columns of Elamite/Old Persian parallel texts [444], columns I and IV stand above the other two (columns II and III) regarding the non-asyndetic morphological use of correlative coordination, *ku-ud-da… a-ak ku-ud-da*(= OP *utā* X utā Y), and of correlative negation, *in-ni…a-ak in-ni* (= OP *naiy* X *naiy* Y). See Tables 3 and 4 for the distribution of correlative coordination and correlative negation.

[442] Humbannumena's inscription, EKI, 4 C., ca. 1355-1345 BCE.
[443] PF 1859:10, 1860:8, 2084:20, 21, 25 (*a-ak ku-ud-da*) (Hallock 1969)
[444] There is a fifth column only in Old Persian.

Table 3: Column I of DB

COLUMN I	Achaemenid Elamite	Old Persian
DB_e X, 26-27 DB_e I, 34	X *ku-ud-da* Y // *ku-ud-da* X *ku-ud-da* Y ***a-ak ku-ud-da*** Z	*utā*// *utā* X *utā* Y *utā* Z
DB_e ex XI, 31 DB_p I, 41	*ku-ud-da* X ***a-ak ku-ud-da*** Y ***a-ak ku-ud-da*** Z	*utā* X *utā* Y *utā* Z
DB_e ex XII, 35-36 DB_p I, 46	*ku-ud-da* X ***a-ak ku-ud-da*** Y ***a-ak ku-ud-da*** Z	*utā* X *utā* Y *utā* Z
DB_e ex XIII, 43 DB_p I, 57	X *ku-ud-da* Y	X *utā* Y
DB_e ex XIV, 49 DB_p I, 65	*a-ak* X *a-ak* Y *a-ak* Z	X=*cā* Y=*cā* Z=*cā*
DB_e ex XIV, 50-51 DB_p I, 67	*ku-ud-da* X ***a-ak ku-ud-da*** Y ***a-ak ku-ud-da*** Z	X=*cā* Y=*cā* *utā* Z
DB_e ex XVI, 60 DB_p I, 77	X *a-ak ku-ud-da* Y	X *utā* Y
DB_e exXVIII, 68 DB_p I, 85	X *ku-ud-da* Y	X *utā* Y
DB_e XII, 37-38 DB_p I, 48-49	*in-ni* X *in-ni* Y ***a-ak in-ni*** Z	***naiš*** X ***naiš*** Y ***naiš*** Z

Table 4: Column II of DB

COLUMN IV	Achaemenid Elamite	Old Persian
DB_e ex LII, 49 DB_p IV, 7	X *a-ak* Y	X *utā* Y
DB_e ex LX, 75 DB_p IV, 56	X (X *a-ak ku-ud-da* Y) *a-ak ku-ud-da* Y	*utā* X *utā* Y
DB_e ex LX 75 DB_p IV 58	X *a-ak ku-ud-da* Y	X *utā* Y
DB_e ex LXII, 78 DB_p IV, 61	X *a-ak ku-ud-da* Y	X *utā* Y
DB_e ex LXII, 79 DB_p IV, 62	X *a-ak ku-ud-da* Y	X *utā* Y
DB_e LI (ex LXIII), 79-80 DB_p IV, 63-65	*in-ni* ***a-ak in-ni*** ***a-ak in-ni*** *in-ni* ***a-ak in-ni*** ***a-ak in-ni*** *in-ni*	***naiš*** ***naiš*** ***naiš*** ***naiš*** ***naiš*** ***naiš*** ***naiš***
DB_e ex LXVI, 86 DB_p IV, 73-75	***a-ak in-ni*** [ ] X *a-ak ku-ud-da* Y X *a-ak* Y X *a-ak ku-ud-da* Y	***naiš*** *utā* *utā* *utā* *utā*
DB_e ex LXVII, 88 DB_p IV, 77-79	[ ] X *a-ak ku-ud-da* Y X *ku-ud-da* Y	*utā* *utā* *utā*

At first glance, the morphological correlations attested in the Achaemenid Elamite version have no exact parallel in the Old Persian texts. Notably, Elamite displays striking similarities with Avestan correlative structures: *ku-ud-da…ku-ud-da…a-ak ku-uda* ≈ Av. *uta…uta…ca* (Skjærvø 2009: 149), *in-ni…in-ni…a-ak in-ni* ≈ Av. *nōiţ…nōiţ… naēδa* (Y 19, 15), *in-ni…a-ak in-ni…a-ak in-ni* ≈ Av.

nōiṯ…naēδa…naēδa (Y 11, 6). Now, I am going to analyze each passage –only focusing on correlative negation– where this "anomalous" correlative structure is attested [445].

Achaemenid Elamite displays the morphological form *in-ni…a-ak in-ni* for rendering correlative negation which in Old Persian is expressed asyndetically through the repetition of the negative marker, OP *naiy… naiy*, in the same vein as for Indo-Iranian languages such as Avestan and Vedic. I provide the passages under discussion in (2) and (3). As can be seen, the use of the negative coordinator *a-ak in-ni* "nor" in correlative negation is not totally consistent. In the same passages, there are instances of asyndetic correlative negation *in-ni…in-ni* [446].

(2)
DB_e XII: 37-38

a-ak	*da-ri-ya-ma-u-iš*	*SUNKI*	*na-an-ri*	^{DIŠ}*RUH*^{MEŠ}*-ir-ra*		***in-na***
and	Darius	king	3SG-say	man		NEG
šà-ri	*sin¿-ni ut-tar-ra*	***in-ni***	^{DIŠ}*pár-sir-ra*	***in-ni***	^{DIŠ}*ma-da*	***a-ak in-ni***
3SG-be	doer	NEG	Persian	NEG	Median	COOR NEG
^{DIŠ}*NUMUN*^{MEŠ}	^{DIŠ}*nu-ka*$_4$*-mi*	*ak-ka*$_4$	^{DIŠ}*gam-ma-at-tá*		^{DIŠ}*ma-ku-iš*	
family/race	ours	who	Gaumata		magician	
^{DIŠ}*SUNKI-me*	*e-mi*	[*du-iš-ti*]				
reign=from	him	3SG-obtain				

"And king Darius says: there was neither man nor doer/perpetrator, neither Persian nor Median nor of our race, who(ever) could get the reign from Gaumata the magician"

Figure 1: Syntactic patter of DB_e XII: 37-38 (ex XIII)
➔ *in-na…in-ni* // *in-ni…in-ni…**a-ak in-ni***

"neither…nor" // "neither…nor…nor"

(3)
DB_e LI: 79-81 (ex LXIII)

ú	***in-ni***	*ha-ri-ik-ka*$_4$	*ha-um*	***a-ak***	***in-ni***	*ti-tuk-kur-ra*	*gi-ut*	
I-1SG	NEG	wicked	1SG-be	COOR	NEG	liar	1SG-be	
a-ak	***in-ni***	[*ap-pan-la-kur-ra*	*gi-ud*	***in*]*-ni***		*ú*	***a-ak***	***in-ni***
COOR	NEG	violent	1SG-be	NEG		I	COOR	NEG
^{DIŠ}*NUMUN*^{MEŠ}*-mi*		*šu-tur*	*uk-ku*	*hu-pa-gi-ud*		***a-ak***	***in-ni***	
family	=mine	justice/law	above	1SG-follow		COOR	NEG	
^{DIŠ}*ip-pá-ak-ra*		***in-ni***	^{DIŠ}*iš-tuk-ra*	*ap-pan-la-ik-ki-um-*[*me*			*hu-ut-tá*]	
powerful		NEG	weak	violence			1SG-do	

"I was neither wicked nor a liar, nor violent, neither I nor my family. I follow justice and I did not do violence neither to the strong nor to the weak"

[445] I.e. not being attested before in previous stages of the Elamite language.
[446] One further piece of evidence is the correlative negation with the prohibitive negative marker: DB_e LII (ex LXIV): *anu…a-ak anu*.

Figure 2: Syntactic pattern of DB_e LI: 79-81 (ex LXIII)

➔ *in-ni… **a-ak in-ni** …**a-ak in-ni*** // *in-ni… **a-ak in-ni*** // *a-ak* (*in-ni …in-ni*)
"neither….nor….nor" // "neither…nor" // "and not" + ("neither…nor")

From a linguistic point of view, the Elamite version serves as a reflection of the Old Persian text. On the one hand, the unusual structure *in-ni…a-ak in-ni* supports the somehow 'trivial' idea that the asyndetic repetition of the negative marker indeed expresses correlative negation in Old Iranian. The soundness of this morphological coordinator *a-ak in-ni* is being further supported by the syntactic behaviour of Elamite indefinites. In (4), the Old Persian parallel text to DB_e XII: 37-38 shows the presence of an indefinite *kašci*. However, in the Elamite text, the expected indefinite (*ak-ka$_4$-ri*) is nowhere to be found, but, instead, the Elamite version has a relative pronoun *ak-ka$_4$*.

(4)
DB_p I, §13, 48-49
naiy *āha martiya **naiy** Pārsa **naiy** Māda **naiy** amāxam taumāya **kašciy haya**…*
"There was no man, neither Persian nor Median nor of my family, who(ever)…".

As we will see in the next section, Elamite indefinites cannot appear in post-negative position: IP (…) + $_{Prev}$NEG + V. Thus, due to the presence of *a-ak in-ni* and given that the negative marker is at a clause-initial position instead of at an immediately preverbal position, Elamite resorts to the relative pronoun *ak-ka$_4$* that does not have the restraints of Elamite indefinites. To a certain extent, the negative coordinator hinders the presence of a regular indefinite. One further argument supports the reality of *a-ak in-ni*. As we saw in the chapter on Indo-Iranian, OP *kašci* is not acting alone, but it is accompanied by the relative OP *haya* "who" for the expression of an indefinite relative sentence (i.e. a relative FC = "whoever"), out-scoping the negative marker that precedes it and focusing over the genitive *amāxam taumāya*. Notice that the other instances of the indefinite relative *kā…haya* "whoever" are also rendered in Elamite by the relative pronoun *ak-ka$_4$*, and not by an indefinite pronoun.

Moreover, as discussed, columns I and III of DB_e show a great deal of 'positive' correlative coordination. Notably, the two instances of correlative negation are also present in the same two columns. This could suggest that there are two or more different scribes at work in the redaction of the Elamite version, probably all of them speakers of an Old Iranian language. There is no correlation between the hands that could be

identified at the rock and the scribes in charge of the inscription, since there were specific people in charge of putting the cuneiform signs into the rock, probably copied from a written text. Thus, if there are various syntactic patterns being used in different columns, they must relate to different scribes. What it is evidenced in DB_e is exactly that. Also, the differences in the use of correlative coordination (*a-ak…a-ak* vs. *ku-ud-da…a-ak ku-ud-da*) might point to different levels of proficiency in the Elamite language. Furthermore, *a-ak in-ni* can be used as a negative coordinator "and not", as we saw in (3). One more example of this use is in (5a); the OP parallel has only the negative particle (5b).

(5)
a. DB_e ex LXVI, 86

a-ak	*an-ka$_4$*	*^{AŠ}tup-pi*	*hi*	*zí-ya-in-ti*	*hi*
COOR	if-CONJ	inscription	this	2SG-see	this

in-na-ak-ka$_4$-nu-ma	[***a-ak in-ni*** [447]	*ap-pi-in*		*sa*]*-ri-in-ti*	*sa-ap*	*in*
bas-relief	COOR NEG	them		2SG-destroy	how	it

nu-ib-be	*da*	*hi*	*zí-la*	*ku-uk-da-in-da.*
similar	also	this	in the same way	2SG-keep

"and if you see this inscription (and) this bas-relieves and you do not destroy them, (but) you keep them in the same way just as something similar…"

b. DB_p IV, 73-75
yadi imam dipim vaiynāhi imaivā, patikarā ***naiš****dis vikanāhi uta….*
"If you shall look at this inscription or these sculptures, (and) shall not destroy them and…"

There is further evidence of negative coordination and correlative negation in DNb_e, as seen in (6). According to Vallat (1977: 155-6), there are more instances of this structure in this passage. However, the text is greatly damaged. If Vallat's conjectures and his proposed reconstruction are assumed to be correct, there would be an occurrence of a personal pronoun (1sg) v.*ú* "I" between the coordinator *a-ak* and the negative marker *in-ni*: *a-ak* v.*ú in-ni*. This would cast some doubts on the real grammaticalization of this structure. Nevertheless, I believe that the validity of *a-ak in-ni* is still sound, given its attestation also in the Persepolis administrative tablets, as in (7) [448].

[447] Notice that Aliyari Balboghani (2015) proposes as a different reconstruction: [-*ma an-ka$_4$ hi in-ni sa*-]. On the other hand, King-Thompson (1907) supports our reading. Weissbach (1911), Vallat (1977) follow the same with some minor changes. Grillot-Susini et al. (1993) also give this restitution of the text.
[448] A possible example of negative coordinator is attested in Fort. 0766-102. However, the exact meaning of the text is hard to disclose, since the tablet is broken on the left reverse side.

(6)
DNb_e 5-6

[v.] *ú*	***[in]-ni***	*ka₄-ni*	*ap-pa*	*v.iš-tu[k]-ra*	*v.i-ip-ik-ra*
I-1SG	NEG	support-1SG	that	weak	powerful

[*in tuk*]-*ki-me*	*su-rák*	*ni*-[*ma*]-*ak-ni*	***[a]-ak [in]-ni***	
on account of	abused	be-3SG	and NEG	

ka₄-ni	*ap-pa*	v.*i-ip-ik-ra*	v.*iš-tuk-ra*
support-1SG	that	powerful	weak

[*in*] *tuk-ki*-[*um*]-*me* *su-rák-ni*.
on account of be abused-3SG

"Neither I supported that the weak be abused on account of the powerful nor did I support that the powerful be abused on account of the weak".

(7)
Fort. 1268-101[449]

ti-ut-pi	*PAP*	*68*	*am-ma*	***in-ni***	*ma-ak- ka₄*
chicks	total		on hand	NEG	consume-3SG

a-ak in-ni	*hal-pi-ka₄*
and NEG	die-3SG

"68 chicks in total on hand were neither consumed nor killed"

Finally, *a-ak in-ni* in DB_e ex LXVI, 86 (Table 3) could have a neat parallel in *utā naį̯*[450] attested in the fifth column of the OP version, for which there is no Elamite parallel text. See (8).

(8)
DB_p V, 31
avaiy Sakā arīka āha, ***utā naį̯*** *Auramazdāšam ayadiya*
"Those Scythians were disloyal and Auramazdā was not worshipped by them".

Thus, I take the negative coordinator *a-ak in-ni* used in correlative negation to be the result of Old Iranian influence based on the Iranian scribal practice of using the Elamite language as a writing means. Therefore, Old Iranian must have influenced Elamite to such an extent that it acquired morphosyntactic forms that cannot be accounted for within its own system. There is no correlative negation in pre-Achaemenid Elamite, although there could be some evidence of a negative coordinator *a-ak im-me* in one Middle Elamite inscription belonging to king Šutruk-Nahhunte I (ca.1190-1155 BCE): EKI 28A, §12, 19, and in a Neo-Elamite inscription belonging to king Šutruk-Nahhunte II (ca. 717-699 BCE): EKI 72, §VI-VII, 12-13; IRS 57, 12-13.

[449] OCHRE (Online Cultural and Historical Research Environment), Oriental Institute of Chicago. OCHRE is a online database with digitalized versions of Persepolis administrative tablets. Thanks are due to prof. Stolper, as director of PFAP, for letting me quote Fort. Texts.
[450] Also, negative coordination in Middle Persian: *ud* (…) *nē* "and not".

Nevertheless, in the inscriptions of Chogha Zanbil (ca. 1275-1240 BCE), there are no such structures attested, so these negative coordinators might have been the simple result of language use: two negative sentences coordinated by a coordinating conjunction. Thus, I claim that all types of correlative structures attested in Achaemenenid Elamite are due to contact with Old Iranian. This feature of Achaemenid Elamite relates to the transfer of syntactic structures from Iranian scribes into written Elamite, which they would have known as a second language. Transfer is the direct result of interferences among languages in contact. There are two types of transfer: (i) by borrowing, e.g. lexical borrowing by Elamophones from Old Iranian, or (ii) by imposition, e.g. grammatical restructuring of Elamite by Iranophones such as the reduction of negative markers into one sole negative marker and the syntactic change from a constituent into a sentential negation. Thus, the examples shown above represent the transfer carried out by imposition [451], which implies that speakers activate the structural features of their dominant language (Old Iranian) when they acquire a second language (Elamite) and, in doing so, they transfer some of the syntactical features of their mother tongue language to their version of the recipient language (Elamite) [452].

If we take a look at the other Royal Inscriptions and the Elamite administrative tablets from Persepolis, we can see that there are instances of correlative negation in the form of the asyndetic repetition of *in-ni*, as in (9a-d).

(9)

a. DSe $_e$ 32-33 [453]

ik-ka$_4$-mar	*ip-še-man-pá*	*sa-ap*	[^{DIŠ}*ip*]*-pá–ak-ra*	^{DIŠ}*iš-tuk-ra*
because:CONJ	3PL-be afraid	that	powerful	weak

in-ni	*ir*	*ka$_4$- ṣa-ma-ak*	***in-ni***	*pír-ra-ma-ak*
NEG	him	3SG-oppress	NEG	3SG- subjugate

"Because they were afraid of my law, so that the powerful neither oppresses nor subjugates the weak"

b. PF 1954, 17-19 [454]

in-ni	*tin-ke-iš*	^{AŠ}*hal-me*	***in-ni***	*du-uk*
NEG	3SG-send	seal=his	NEG	received

"Neither he sent it nor the sealed document (was) received".

c. PF 1973: 6-8.

m.taš-šu-íb-be-ik^a-mar	***in-ni***	*kur-ra-iš-da*
people=PL=from	NEG	I-3SG:retain=completed action

[451] Windford (2003).

[452] Cf. Muysken (1997). Media Lengua: Spanish vocabulary and Quechua grammar.

[453] Vallat (1977).

[454] Hallock (1969). Other examples: PF 1973, 1986, 2084.

šu^{b}*-tur* *su-ut* ***in-ni*** *hu-ut-taš*.
accounting requisition NEG I-3SG:make
"From the officials he neither retained (anything) nor with the balance he made a requisition."

d. PF 2084:19-21
// a-ak ku-ud-da w.ì.lg-na ***in-ni*** *ul-la-iš*
and oil NEG I-3PL:deliver
hu-be in-tuk-ki-me mu-ši-um-me
this because of accounting
in-ni *hu-ut-tuk-ka*.
NEG II-3G: do
"And neither they delivered the oil nor, for this reason, the accounting was not done".

According to the restitution of Hinz & Koch (1987), there is a possible case of asyndetic correlative negation in EKI 75, as shown in (10). This inscription of king Hanni of Ayapir is now dated to 630-10 BCE (Tavernier) or 585-39 BCE (Vallat), i.e. during the Neo-Elamite period (1000-550 BCE). If the reconstruction is correct, this could be the first example of negative coordination and it would have been triggered by Iranian influence. It should be noted that in Neo-Elamite texts there are already renderings of Old Iranian anthroponyms of scribes and this is supported by the fact that there are already several scribes of Iranian origin working in Susa and other administrative centres by the Neo-Elamite period onwards.

(10)
EKI 75, §3,2-3; IRS 57, 12-13
ba-li-ik-ma-an-ki ***a-ak*** ***im-me*** *tu-ru-uh*
IIIm-1SG:make an effort COOR NEG=3SG.inanimate I-1SG: say
šil-ha-ma-an-ki ***a-ak*** ***im-me*** *hu-uh-tah.*
IIIm-1SG:be strong COOR NEG=3SG.inanimate I-1SG: get ready
"I have made an effort and I have not said (anything); I have been strong and I have not gotten ready".

To sum up, I would like to highlight the fact that, due to Old Iranian influence, Elamite innovates and creates forms that are not attested during pre-Achaemenid times. I believe that the syntactic pattern of correlative negation in Achaemenid Elamite resembles very closely the syndetic Old and Young Avestan correlative negation (El. *in-ni…a-ak in-ni* = OAv./YAv. *nōiṯ… naēdā / naēδa* [455] as well as the way YAv. *naēδa* [456] sometimes functions as a single negative coordinator without a preceding standard negation, which has a parallel in OP. *utā naiy* and Ach. El. *a-ak in-ni*. Therefore,

[455] Yt. 10, 15, V 13, 9
[456] Yt. 10, 19

Achaemenid Elamite displays both types of correlative negation attested in Old Iranian as well as a negative coordinator. Scribes might have been familiar with both the syndetic (Avestan) and the asyndetic (Avestan and Old Persian) way of marking correlative negation [457]. It is a known fact that Iranian scribes were in charge of the redaction of the Achaemenid Elamite versions. Although it is not sure which Old Iranian variety they spoke, it seems evident that they were familiar with the Old Iranian syndetic correlative negation that runs parallel to that attested in other IE languages such as Latin and Greek and which is not present in Old Persian. Thus, I propose that there is reason to believe that some scribes might have spoken an unattested Old Iranian language or dialect with similar correlative negation patterns as Avestan as regards correlative negation, since it seems rather unlikely that the scribes responsible of the redaction of the Elamite texts would have been acquainted with the Avestan language. In Table 5 I provide all attested negative formations discussed in this section.

Table 5: Negative coordinators and correlative negation in Old Iranian languages and Achaemenid Elamite

	Avestan		**OP.**	**Ach. El.**
Standard negation	OAv./ YAv. *nōiṯ*		*naiy*	*in-ni*
Negative coordinator	YAv. *naēδa*		*utā naiy*	*a-ak in-ni* cf. *a-ak im-me* (Neo-Elamite)
Correlative negation	**syndetic**	OAv. / YAv. *nōiṯ… naēdā* / *naēδa* YAv. *naēδa …naēδa*		*in-ni…a-ak in-ni*
	asyndetic	OAv./ YAv. *nōiṯ…nōiṯ*	*naiy…naiy*	*in-ni…in-ni*

5.4 Indefinites in Achaemenid Elamite

Although Henkelman (2016:116) considers indefinite pronouns morphologically identical to relative pronouns, Achaemenid Elamite has two distinct indefinite pronouns: the animate *ak-ka₄-ri* "anyone" [458], which is a compound made of the relative

[457] Middle Persian also attests similar structures: (*ud*) *nē…ud* (…) *nē* (*-iz*) "neither…nor". Cf. Nyberg (1974: 137); Skjærvø (2009b: 253).
[458] Sometimes with personal determinatives HAL, DIŠ, or SAL.

ak-ka₄ "who" plus the animate nominal classifier *-ri*. The second indefinite is the inanimate *aš-ki* "anything", lit. "one part", according to Khačikjan (1998:29), although Hallock (1969: 670) considers it a calque of OP *cišci*. This inanimate indefinite is only attested in Achaemenid Elamite and there are no examples outside the Royal Inscriptions. In Table 6, I provide the parallel occurrences of Old Persian and Achaemenid Elamite indefinites. As observed, there is no exact correlation between both versions. Notice that the Old Persian free-choice indefinite relative *kašci haya* is represented by the relative pronoun *ak-ka₄* in the Achaemenid Elamite version. If we turn to the parallel versions of OP. *tuvam kā…haya* –the other instance of an indefinite relative we already studied– the Achaemenid Elamite, New Babylonian, and Aramaic versions also display corresponding indefinite relatives: Ach. Elam. *nu… ak-ka₄*, NB *mannu atta ša*, and Aram. *mn 'n… zy'* "you, whoever…" [459]. I believe that Henkelman's proposal regarding relatives as indefinite pronouns is derived from these patterns. Thus, I consider that the Achaemenid Elamite relative *ak-ka₄* is marking an indefinite relative construction and not simply an indefinite pronoun. As I noticed in the previous chapter (section 3.2.2.1.4), XPh_e 38-39 provides the form *ak-ka₄-ia*, which may represent the missing connection between the OP indefinite-interrogative stem and the relative pronoun taken as one morphological entity in the Elamite text. This case may represent one more instance of a contact-induced formation.

Table 6: Occurrences of indefinites in Achaemenid Elamite and Old Persian

Achaemenid Elamite	Old Persian
DB_e ex XII, 40-1 *aški*	= DB_p 1, §13, 53 *cišci* $_{NP}$
DB_e ex XXV, 20 *aški*	= DB_p 2,§25, 29 ✗ ✔✖✐
DB_e ex XXVIII, 36 *aški*	= DB_p 2, §25, 29 ✗
DB_e XII, ex XIII, 40 *ak-ka₄-ri*	= DB_p 1,§13, 53 *kašci* $_{NP}$
DB_e LI, ex LXIII, 82 *ak-ka₄-ri*	= DB_p 1,§14, 67 ✗
DB_e ex XII, 37-8 *ak-ka₄*	= DB_p1, §13, 49 *kašci haya* $_{FC\ rel}$
DSe_e 37 ✗	= DSe_p §5, 37 *kašci* $_{FC\ nom}$

Both indefinites display NPI features. Although they are not inherently negative, they must always be in the presence of negation, which works as a polarity trigger. In

[459] CF. Bae (2001)
[460] ✗ = no parallel attestation.

the history of Elamite language, all indefinite pronouns display a very strict word order: IP (…) + $_{Prev}$NEG + V. See (11) for examples.

a. DB_e LI (ex LXIII)
ap-pan-la-ik-ki-um-me ***ak-ka$_4$-ri**-ug-gi* ***in-ni*** *hu-ut-tá*
violence anyone = above NEG do-PST.3SG
"I did not commit violence against anybody"

b. DB_e XII (ex XIII)
a-ak ^{DIŠ}***ak-ka$_4$-ri*** ***áš-ki*** (41) ^{DIŠ}*gam-ma-at-tá*
and anyone anything Gaumata
^{DIŠ}*ma-ku-iš tu-pá-ka$_4$* ***in-ni*** *li-ul-ma-ak*
magician in relation with NEG 3SG-arrive
ku-iš ^{DIŠ}*ú ši-in-nu gi-ud*
until I come be-PST.1SG
"And no anyone testified anything in relation with Gaumata the magus, until I had arrived".

c.DB_e XII (ex XIII)
me-ni v.taš-šu-íb ap-pa v.ú-ni-na
then troops=PL which/that =mine:POSS.1SG.animate
áš-ki ***in-ni*** *hu-ud-da-iš*
anything NEG I-make=3PL
"Then, my troops did nothing"

Further evidence for indefinites being employed as polarity items comes from the Middle Elamite period. In the Tchogā Zanbil inscriptions, there are several occurrences of the inanimate form *az-ki-it* "anything" as in (12): Untaš-Napiriša (*ca*.1340-1300 BCE): *az-ki-it ... in-gi* (x22), and Šilhak-Inšušinak (*ca*.1150-1120 BCE): *az-ki-it an-i* (x5), with the prohibitive negation.

(12)
EKI 11Aa/MDAI XLI 36
ta-ak-me ú-me tu$_4$-ur-hi-ih si-it-me
life 1SG=inanimate kingdom welfare
*ú-me šu-ul-lu-me-en-ga // **az-ki-it***
1SG=inanimate III-keep=1SG=SUB anything
hu-šu-ut-ta ***in-gi*** *hi-en-ga.*
vengeful=inanimate NEG=1SG III-obtain=1SG=SUB
"So that my life and my reign of welfare might stay safe (and) I might get nothing vengeful"

There are also examples of *ak-ka$_4$-ra* (x5) from the Middle Elamite and Neo-Elamite periods: EKI 28a -Šutruk-Nahhunte I (*ca*.1190-1155 BCE): (x3) *ak-ka$_4$-ra…im-me /in-ri*, EKI 17, IRS 54-Šutruk-Nahhunte II (*ca*.717-699 BCE): *ak-ka$_4$-ra…in-ri*, and EKI 79-Tepti-Huban-Inšušnak: 550-30) *ak-ka$_4$-ra…im-me*. See (13).

(13)
EKI 28A, § 5, 8 [461]
su-un-ki]-ip ur-pu-ub-ba ***ak-ka$_4$-ra*** *hu-te-e*
king =PL former =of anyone road
hu-sa-hi-te-ik-ip-pa ***in-ri*** *du-ur-⌈na-áš*
marble = PL NEG.3SG (animate) know-3SG
"of the former kings, no one knew the road of marble."

In the administrative tablets, we find two notable features: first, we see the numeral 'one' acting as a negative polarity indefinite and, secondly, some instances of *ak-ka$_4$-ri* without negation expressing an existential indefinite "someone". See (14) for examples.

(14)
a. PF 1859, 16
li-pa-ar ***in-ri*** *ki-ir*
servant NEG-3rd one-3rd/any
"There is no servant"

b. PF-NN 2506 [462]
Ma-ša ak-ka$_4$-ri
Maša some
"a certain Maša"

In (14a), we see how the numeral 'one' is used as an indefinite pronoun along with negation, not following the Elamite word order for indefinites (indefinite + NEG), but a NI word order, which is fairly common in IE languages such Av. *naēcis* or Ved. *nákis*. Notice that in DB$_p$ 1,§13, 53, *kašci* reflects the Elamite indefinite word order, not showing negative attraction and placed in pre-verbal, pre-negative position: *kašci naį adršnauš* "not anyone dared…". Thus, (14a) provides further evidence to consider the numeral 'one' a true OIran. indefinite. Moreover, (14b) also points to the use of the numeral 'one' as an existential indefinite in Old Persian. Cf. OP. *aiva martiya* "one man" = *ru-uh ki-ir* "man one". Notice that the second position of the numeral after the nominal closely resembles MP. *-ēw* "one, some". The same pattern could be seen in the newly-formed indefinite *aš-ki* (lit. *part-one* > anything)[463]. Thus, I believe Quintana (2013:56) is correct in considering *ki-ir*, which is the numeral 'one' plus the delocutive 3sg. animate suffix *-ir*, as another possible form for rendering an indefinite in Achaemenid Elamite due to Old Iranian influence. In the administrative tablets, *ki-ir* (cf.

[461] Also EKI 28A, §11, 17
[462] Also see PF 1846, 101.
[463] The numeral 'one' might also be present in Ach. Elam. *da(e)ki-* "other", parallel form to OP *aniya-ci*.

PF-NN 1431) is used as a numeral as well as an indefinite determiner[464]. Furthermore, in the Bīsotūn inscription, although the collocation *aiva martiya* "some/a certain man" is always used closely following El. *ru-uh ki-ir*, there are instances where the numeral *ki-ir* does not have a parallel in the Old Persian text, suggesting that, in a way, the use of the numeral as an specific indefinite "a certain, some" is more consistently employed in Elamite than in Old Persian. It should be noted that this use of the numeral as an indefinite is not attested prior to Achaemenid Elamite times. In Table 7, I provide a list of all indefinites according to the Elamite period in which they are attested:

Table 7: Indefinites through the history of Elamite

	Middle Elamite	**Middle Elamite Neo-Elamite**	**Achaemenid Elamite**
Inanimate ("not anything")	*az-ki-it…in-gi/ani*		*áš-ki…in-ni*
Animate ("not anyone")		*ak-ka$_4$-ra…in-ri* *ak-ka$_4$-ra… im-me*	*ak-ka$_4$-ri…in-ni*
Animate "a certain/some"			*ki-ir* *ak-ka$_4$-ri*

Finally, Henkelman (2008: 446/fn.1035) has suggested that the form El. *kaš* attested in some Neo-Elamite texts (EKI 85[465]) and Achaemenid administrative tablets (PF 269:8, PF 755, 4) may represent a loan from OP *kaš-ci* [466]. This form refers back to animate and, rarely, to inanimate objects as a resumptive pronoun. Hallock (1969: 9, 711) asserts that Ach.Elam. *kaš* [BI] is in substitution of the 3rd person singular dative resumptive pronoun *hi* "to him" and Vallat (1987), in the same way, considers *kaš* an archaic formation of this resumptive pronoun. Thus, although it seems an admittedly rare formation, in some cases along with the original resumptive *hi*, Ach. Elam. *kaš* / *kaš kaš* [467] is a resumptive pronoun on its own accord rather than an indefinite pronoun or a substitute of *hi*. Therefore, Ach. Elam. *kaš* could be considered another instance of the influence of Old Persian over Elamite, especially taking into account the late date of the Neo-Elamite inscription, where this form is attested, and its presence in the

[464] Also cf. Reiner (1960:225).
[465] From the king Tepti-Huban-Insušnak (*ca*. 550-30 BCE).
[466] In Achaemenid Elamite, the addition of a final -*š* is a general phenomenon observed in Old Persian loans.
[467] With reduplication in EKI 85, 6,7, 9, 10, similarly to Avestan and Old Persian reduplicated indefinites.

administrative archives of the Achaemenid period. Elamite would have acquired *kaš* from Old Persian –a morphological loan– and, after losing its original value, would have been redeployed as a resumptive pronoun [468].

5.5 Summary

In this chapter I have studied Elamite (correlative) negation and indefinites and how they reflect in many respects Old Iranian influence over Achaemenid Elamite. Next, I provide a complete list of all Achaemenid Elamite linguistic features arosen from this contact with Old Iranian studied above:

1. The gradual reduction of negatives into a sole negative marker: *in-gi* /*in-ri* /*im-me*/ *in-ni* > *in-ni*.
2. The development from a (focus-based) constituent negation into a fully operational sentential negative marker.
3. The creation of a negative coordinator used in correlative negation, fashioned after an Old Iranian coordinator: *in-ni…a-ak in-ni* (= prohibitive markers Ach. Elam. *anu…a-ak anu*). It resembles Av. *nōiţ…naēda*, *naēδa*. Cf. coordinating combinations Ach. Elam. *ku-ud-da…a-ak ku-ud-da*. The genuine Persian way of expressing a negative correlation might have been the coordinator (*utā*) *naį*, as observed also in Middle Persian (*ud*) *nē*...(*ud*) *nē* "neither…nor".
4. The use of *ki-ir* as an indefinite determiner (*specific* indefinite). Cf. OP *aiva* > MP -*ēw*.
5. The compound morphology of the inanimate indefinite pronoun *aš-ki* with the numeral one lit. "part-one". Cf. MP -*ēw*. Maybe modeled after OP **aiva-ci* > MP *ēč* "anything".
6. *ak-ka₄-ri* as a existential indefinite, similarly to *ki-ir* after OP. *aiva*, even though all Elamite indefinites are, in principle, negative polarity indefinites, as attested in earlier stages of Elamite, there being no exceptions to this rule.
7. The use of the relative *ak-ka₄* for an indefinite relative attested in Old Persian. This may suggest that the Elamite version of the Bīsotūn inscription is actually following an Old Iranian (maybe Old Persian) version that has not been preserved.

[468] Cf. Tavernier (2018: 429-30).

8. The adaptation of *kaš*, originally an OP indefinite, as a resumptive pronoun

Although these features are found in Achaemenid Elamite and are not present in earlier stages of the language, they represent different levels of language contact and all of them reflect the transfer of morphological and syntactical patterns into Elamite by Iranian scribes who would have learned Achaemenid Elamite as a second language for administrative (written) purposes. As we have seen, Elamite morphology and syntax seem to be heavily influenced by Old Iranian, making it the perfect reflection of Old Iranian grammar and, therefore, worth studying, given the fragmentary state of Old Iranian, especially of Old Persian.

CHAPTER 6: CONCLUSIONS

Throughout this dissertation, I have intended to provide a full account of indefinite pronouns and negative markers in Ancient Greek and Indo-Iranian. I have based my study on the earliest attestations of Greek and Indo-Iranian, that is, on the following languages: Mycenaean Greek, Homeric Greek, Old Avestan, Young Avestan, Old Persian, and Vedic. I have also studied Achaemenid Elamite negatives and indefinites that seem to be under Old Iranian influence. In my analysis of these languages, I have mainly followed Haspelmath's semantic map of indefinites and Giannakidou's theory of non-veridicality. I have also included in my dissertation a general study of indefinites in other IE languages for the sake of *comparanda*.

Accordingly, I have delved into negation, which is an anti-veridical operator, which, by all means, represents the most important trigger of polarity. This concept of polarity consists in the semantic deficit of a certain sentential element whose distribution is restricted by its sensibility to some semantic property in a given context. Additionally, conditionals and interrogatives are other semantic contexts semantically similar to negation since they represent non-veridical (or *irrealis*) environments. The different functions performed by indefinite pronouns directly relate to their presence or not within one of these non-veridical contexts, especially when dealing with negative or affective polarity items. Crosslinguistically, indefinites appear to have a special affinity with non-veridical contexts given their recurrent appearance within them, especially with negation. The unstressed indefinites are based on the interrogative stems *k^we-/k^wo- /k^wi- (and *k^wu- for adverbs) and, as we saw, there are indefinites more sensitive to polarity than others. This semantic feature might have been attained by the use of different types of particles that would overtly mark them as polarity sensitive elements.

When indefinites appear in veridical contexts, the speaker's commitment to the truth of the proposition becomes central. These *specific* indefinites are usually represented in English by the *some*-series. The absence, or at least, the low rate of *specific* (existential) indefinites in early IE languages might point to the fact that the proto-language did not possess them and that, gradually, each language started to develop this function, mainly by the deployment of already existing indefinites, concretely from *k^wo/i -k^we/k^wi formations, or the creation/use of new indefinite series. Examples of the former are Ved. *káś cid* and Hitt. *kuiški* indefinites that evolved from

free-choice to negative polarity, and then to existential quantifiers. Haspelmath (1997: 150) labels this phenomenon as *diachronic extension* –or *weakening*– of the indefinite functions from free-choice to specific (existential) indefinites. Examples of the latter are Gr. εἶς and OP *aiva,* which are 'one'-based indefinites that can cover the *specific* function and clearly represent inner-developments. Hittite also attests multiple partitive constructions with the bare interrogative *kuiš* //*kuiš* for the expression of specific indefinites. On the other hand, Greek also uses the relative ὅστε for *specific-known* indefinite entities and the pronoun τις for *specific unknown*. Notably, in the same manner, Latin uses *quidam* and *aliquis* for *specific known* and for *specific unknown* functions respectively. Finally, we saw Arm. *omn* as an existential/*specific* indefinite only present in veridical contexts and Go. *sums* that behaves in a similar manner. As we see, each language resorts to a different series or creates a special indefinite series in order to express specificity. There are not many examples of Hitt. *kuiški* as an existential indefinite and, furthermore, the rest of the Anatolian languages do not seem to possess a special *specific* indefinite series either. For its part, Old Iranian does not display this type of indefinite at all and in Greek *specific* indefinites are indeed present, but their numbers only amount to 20 % of the occurrences, opposed to the 80% of *non-specific* cases of τις. Thus, I conclude that *specific* indefinites might have been a later creation carried out by the historical IE languages and that they might not have been present in the proto-language. Outside the IE sphere, in very early attested languages such as Akkadian and Summerian indefinites display a clear tendency to be present within non-veridical contexts, especially under the scope of negation. Moreover, typologically speaking, non-specificity is in the core of languages indefinite systems and, therefore, *specific* indefinites, restricted to *realis* contexts, represent a non-prototypical paradigm, which is the result of the gradual loss of degrees of non-specificity and unknownness by indefinites.

Moving on rightward in Haspelmath's semantic map, the *irrealis* indefinite type is barely attested. Greek shows but a few examples of τις carrying out this function, usually preceded by the modal particle κε. On the other hand, Lat. *aliquis* has been specialized to perform that function. Finally Gothic sometimes makes use of the bare interrogative *ƕas* to express this type of indefinite.

IE languages exhibit a great deal of formations and strategies for the expression of free-choice that represents the lowest point of non-specificity. Alongside negative polarity indefinites, free-choice indefinites may portray the other true inherited class of

indefinites. Homeric Greek has three types of formations employed in the expression of free-choice: the indefinite τις, with a few occurrences, and the relative indefinites ὅς τις and ὅς κε, the former with τις as a domain widening particle and the latter with the modal particle κε that ultimately derives from particle *k^we. Both might be related to the IE *(H)yo/ k^wi + k^wo/ki- + k^we/k^wid structure clearly attested in Indo-Iranian and Italic. The relative indefinite ὁπότερος κε "whichever of the two" is another example of a relative indefinite with the modal particle.

Vedic overtly marks interrogative-based indefinites with particles. In the case of free-choice indefinites, it uses the particle *cid*: Ved. *káś cid* and *káti cid*. Vedic also has the relative indefinite Ved. *yát cid*, cognate of Gr. ὅς τις, which is only attested in accusative and has evolved into a conditional/concessive conjunction, most of the time expressing that value. Together with the nominal free-choice Ved. *káś cid*, examples of free-choice relative indefinites are recurrent: Ved. *yá- ka/kim- ca/cid*. One last strategy for the expression of the free-choice is the reduplication of the pronominal stem plus the particle *cid*, Ved. *kā́ni kā́ni cit.* Finally, Ved. *sama-* can also perform a free-choice function.

Old Iranian displays the same patterns as Vedic. There are nominal (i.e. *any*) free-choice indefinites created by the addition of the particle *ciṯ*, Av. *kasciṯ*, Av. *kataraciṯ,* OP. *kasciy*. It shows free-choice indefinite relatives YAv. *yaṯciṯ ,* OP. *yaci,* Av. *yō-ka-ca/ciṯ,* OP. *kā haya*, and the reduplication of the pronominal with an optional use of particle *ciṯ*: Av. *kaŋ́he kaŋ́he*, *kahe kahiiācīṯ*. Notice that, similar to Ved. *yát cid*, YAv. *yaṯciṯ* is only attested in the accusative and can have the conjunctional value "whenever". Contrary to Vedic, most Old Iranian examples of nominal, inherited free-choice formations show a semantic change from free-choice into a distributive universal quantifier "every, each", as Lat. *quisque*.

Among other IE languages, the use of particles and reduplication of the pronominal stem are the most frequent strategies for marking free-choice indefinites. Hittite usually employs *kuiš kuiš*, *kuiš imma kuiš*, or *kuiš imma.* There are some instances of Hitt. *kuiški* as a nominal free-choice, which might have been its original value (from *k^wis-k^we), but it is mainly deployed as a polarity or as an existential indefinite. On the other hand, Latin displays a great deal of forms: the inherited Lat. *quisque*, which evolves into a universal distributive indefinite. Its free-choice function is eventually taken over by the compound pronominals Lat. *quislibet* and *quisuis*. Latin also attests the relative indefinites *quis quis* (with reduplication) and *quicumque* (cf.

Osc. *pisi pumpe*), a reflex of **(H)yó/ $k^{w}i$ + $k^{w}o$/ki- + $k^{w}e$/$k^{w}id$*. In turn, Gothic makes use of the particle **u-$k^{w}e$* added to the pronominal stem: Go. *ƕaz-uh, ƕarjizuh, ƕaþaruh*. Finally, Armenian does not show a nominal free-choice, but it resorts to a relative-indefinite structure for performing the function of a free-choice indefinite: Arm. *or ok*‘/ *or inč*‘ “whoever, whatever”.

One further strategy for expressing free-choice is the use of relative-correlative constructions. Indo-Iranian, especially Vedic, shows a great deal of instances of these formations. Similarly, Hittite “indeterminate” correlative constructions are another case of this strategy. Other IE languages such as Gothic or Tocharian also show relative-correlative structures with a free-choice nuance. In many respects, indefinite relative –and also relative-correlative constructions– share the same semantics as conditionals. Nevertheless, I have argued that this conditional nuance of the indefinite relatives is provided by the core semantics embedded in free-choice formations. Moreover, this similarity in semantics might have been overtly marked by the use of particle **$k^{w}e$* in both free-choice relative indefinites and conditionals.

In Table 1, I provide a full list of free-choice formations attested in IE languages that are based on inherited materials. The meaning of the different signs are as follows: * not attested in my corpus, ? doubtful form, ° (mainly) performing a negative polarity item function, and ≈ mainly as a universal distributive indefinite

Table 1: Free-choice formations in IE languages

	Anatolian	Greek	Phrygian	Iranian	Vedic	Italic	Other IE
**k^{w}i- k^{w}i-* **k^{w}o- k^{w}o-(k^{w}id)*	Hitt. *kuiš kuiš* Lyc. *tise tise* Luw. *kwis kwis*			° OP *cišci* Av. *ka- ka-(ciţ)*	*káni káni cit*	Lat. *quis quis* Osc. *pis pis*	?Toc.B. *k$_{u}$se ksa*
**k^{w}os -k^{w}id* **k^{w}o-tero- k^{w}id*				Av. *kasciţ* ° OP. *kašci* Av. *kataraciţ*	*káś cit* * *katara cid*		
**k^{w}is -k^{w}e* **k^{w}os-k^{w}e* **k^{w}o-tero- k^{w}e*	° Hitt. *kuiš-ki* Lyc. *tisñ-ke* Lyd. *qesi-k*					≈ Lat. *quisque*	≈ Go. *huazuh* ?Arm. *ok‘* ≈ Go. *huaþaruh*
**(H)yó- (H)yó-*			*yos yos*		* *ya- ya-*		
**(H)yó -k^{w}id*		ὅς τις		Av. *yaţciţ* OP. *yaciy*	*yat cit*		
**(H)yó -k^{w}e* **(H)yó-k^{w}o-tero-k^{w}e*		ὅς κε ? ὁπότερος κε	ιος κε				
**(H)yó/ k^{w}i + k^{w}o/ki- + k^{w}e/k^{w}id*		? ὅς τις κε		Av. *yō- cisca* Av. *yō- kaciţ*	*yá- káś ca* *yá- kim ca*	Lat. *quicumque* Osc. *pisi pumpe*	
**k^{w}o- + (H)yó-*				OP. *kā haya*	?*káya-*		

Negative polarity indefinites are basically of two types, which are normally found in non-veridical contexts such as negation, conditionals, and interrogatives. This classification is mainly applied to the ontological category of person.

Figure 1: Types of negative polarity items in IE

Type 1. bare interrogative + non-veridical semantic contexts = indefinite

Type 2. interrogative + particle = indefinite

There is a first group of polarity indefinites that shows a consistent use of enclitic particles for marking interrogative stems as indefinites and a second group that displays a use of bare interrogatives without the help of particles. Nevertheless, the division between these two classes is not strict, given that some languages attest both patterns, although always with a clear tendency towards one. Vedic displays the use of particle *caná* for marking negative polarity indefinites, Ved. *káś caná*, *kátara caná*, etc. Sometimes, negation does not precede the indefinite, so it is the emphasizing particle that conveys the negative nuance, similarly to *nu cid* "never". There are a few instances where Ved. *káś cid* is used with negation, something that is fairly common in Classical Sanskrit, thus displaying free-choice "weakening", as shown by Haspelmath (1997). Old Persian shows the same use in OP. *kasci* and *cišci*. Latin has a distinctive polarity indefinite *quisquam* and the archaic form *quispiam*. I suggested that the ending of the former might be derived from an old instrumental $*k^{w}eh_2\text{-}h_1$ > Lat. *quā* fashioned after other indefinite pronouns such as *quī* and *quō* with $\text{-}h_1$. Gothic, like Vedic, marks negative polarity indefinites with the particle *-hun* derived from $*k^{w}e\text{-}ne$, as in Go. *ƕas-hun* and *manna-hun*. In turn, Arm. *ok*‘ and *inč*‘ act as negative polarity items as well and they are only strictly activated when they are present in non-veridical contexts such as negation, conditionals, etc. Finally, Hitt. *kuiški* also displays the function of a negative polarity item. As mentioned, its original value might have been free-choice, but through "weakening" ended up evolving into a fully-fledged polarity indefinite.

On the other hand, IE languages can also deploy bare interrogatives as indefinite pronouns without the use of particles. When the interrogative-indefinite stems appear in negative, conditional, and interrogative sentences, they can be fully activated as negative polarity indefinites. It seems that this is a very common strategy among IE languages and there are reasons to believe that it may represent an inherited strategy reflecting a stage of the proto-language where there was no use of particles for marking

(negative) polarity indefinites. Ved. *káś*-/ and Ved. *cid* are only attested with negation, but O/YAv. *ka*/*ci*-, Gr. τις, Lat. *quis*, Hitt. *kuiš*, Go. *ƕas* [469] appear in other non-veridical contexts such as conditionals and interrogatives. This is particularly striking for languages such as Indo-Iranian, Latin, Hittite, or Gothic that usually mark negative polarity sensitivity with particles. Finally, some other negative polarity indefinites without particles are Ved. *sama*- and Gr. πότερος.

Another class of negative polarity indefinites is the numeral 'one' *(*H*)*oi̯*- plus different extensions and the instrumental particle -$k^{w}ene$ or the suffix -h_1. Vedic attests *ékaś caná* and Young Avestan *aēuuō-cina*. A similar structure might be behind MP *ēzin* < OP **aiva-cina* (although MP *ēk-iz(y)* < OIr. **aiva-ka*-). Gothic, in turn, attests the same Go. *ainshun.* Finally, there is an instance where OAv. *aēuuā* reflects the instrumental -h_1, which has a parallel in the Latin standard negation *nōn* < **(H)oi̯-no-h*$_1$- with an instrumental suffix -*m* as recharacterization.

Indefinite adverbs also display polarity sensitivity, most of the time by making use of different particles. Greek has 'neutral' indefinite adverbs that show some kind of "indifference" as to what kind of semantic contexts they can appear in, either veridical or non-veridical. Such indefinites are ποτέ, ποθί, and ποθέν. On the other hand, there are some indefinite adverbs that clearly show polarity sensitivity due to its own morphology: πω, πως, πῃ, πώποτε, and πήποκα reflect an instrumental suffix -h_1 that makes them prone to appear in non-veridical contexts, specially negation. For its part, the modal adverb που and its avoidance of standard negation points to a negative polarity rejection. The fact that που can appear along with the prohibitive marker μή invested in the expression of negative counterfactuals can be taken as a further argument of its non-polarity sensitivity to negative contexts. Latin adverbs and conjunctions, which are formed by the interrogative-indefinite stem and the instrumental -h_1, also display polarity-based distribution: Lat. *quō*, Lat. *quī*, and Lat. *quā* are usually present within negative, conditional and interrogatives sentences. On the other hand, although Indo-Iranian has some indefinite adverbs with instrumental suffixes such as **kathā́* and **kadā́*, negative polarity indefinites are always marked with particle IIr. **čana*: YAv. *kaθacina*, Ved. *kútaś caná*, Ved. *kadá caná*. I have found just one instance of an indefinite adverb without particle: YAv. *kudaṯ*. Finally, Gothic *ƕan-hun* and Armenian *erbekʿ* also display a polarity restriction on account of the enclitic

[469] I have not found examples of Go. *ƕas* in interrogatives.

particles employed. Finally, Hittite interrogative-indefinite adverbs *kuwat* and *kuwapi* show polarity sensitivity because they tend to appear in negative contexts and because they work as indefinite adverbs in conditional contexts without the use of the enclitic particles *-ki/-ka*.

Indo-Iranian also presents free-choice adverbs together with the particle **čid*: YAv. *kvaciţ*, Ved. *kutaś cid* , Ved. *kutra cid*, Ved. *kádā cid*, and indefinite relatives such as Ved. *yadá kadá ca*, Ved. *yátra kvà ca*, YAv. *yaθa kaθaca*, YAv. *yauuaţ cuuaţ ca*. Greek might have parallel structures in Gr. ὅπως κε and ὁππότε κε.

Thus, particles $k^{w}id$ /$k^{w}e$/$k^{w}e$-*ne* are deeply engaged in marking interrogative-based formations in order to turn them into fully functional indefinites. The first two are mainly used for the expression of free-choice and the latter for negative polarity indefinites. The case of Gr. τι is unique since it behaves as an emphasizing particle of non-veridical contexts rather than as an indefinite marker or a nominal particle, as it is the case of IIr.**cid*. At the same time, its formal similarity with the quantificational τις / τι indefinite might have prompted the system to turn to scalar focus particles (οὐδέ, οὔτε) and the numeral 'one' for the creation of a completely new negative indefinite series.

Negative pronouns that have undertaken negative absorption are very rare among early IE languages. Such indefinites, concretely for the ontological category of person, are found in Indo-Iranian Ved. *nákis*, OAv. *naēcīš*, YAv. *naēciš*, which have the negative adverbs O/YAv. *naēcī-m* and Ved. *nákī-m* as formally similar cognates. In turn, Homeric attests οὐδείς, which reflects the use of a scalar focus particle for the attraction and univerbation of negation and the numeral one. On the other hand, Indo-Iranian negative indefinites reflect a special type of negative absorption, the one concretely triggered by -h_1, as in *-$k^{w}i$-h_1, in the same way as particle **čana* attracts the numeral 'one' or the interrogative-indefinite stem to its periphery.

Indo-Iranian do not normally use bare-interrogatives. Avestan does not attest a polarity-like indefinite, maybe by the disuse and gradual loss of particle *-cina*. Old Persian attests *-čid* indefinites performing a polarity item function, similarly to Classical Sanskrit *káś cid*. Finally, Greek resorts to a focus particle for the creation of an actual negative indefinite series and not a negative polarity one. See Table 2 for the distribution of negative indefinites and negative polarity items in Greek and Indo-Iranian

Table 2: Negative indefinites and negative polarity items in early Greek and Indo-Iranian

	Negative indefinite "no one"	Negative polarity indefinite "not anyone"
Greek	οὐδείς	οὔ τις
Vedic	*nákis*	*ná káś caná*
Avestan	*naēciš*	
Old Persian		*naiy kašci*

Even though IE indefinites exhibit an innate sensitivity to polarity contexts, whence the attraction of indefinites to non-veridical operators as shown by bare interrogatives, some IE languages make use of instrumental suffixes to overtly mark and trigger such sensitivity. Byproducts of this attraction are the negative absorption formations such as Ved. *nákis*, OAv. *naēcīš* and the renewal of standard negative markers in Greek οὐκί, Armenian *c'* / *oc'* , Albanian *s'*, and Oscan *neip*, all of them from NEG -$k^{w}i$-h_1. Alternatively, I have shown that another possible reconstruction of the pronominal stem is with an instrumental *-*t*, in correlation with my analysis of the nominal formations Lat. *nēquitia* and Gr. οὐτιδανός. It seems that each language resorts uniformally to the same pronominal stem *$k^{w}i$ available in its linguistic repertoire rather than inherits an instrumental formation directly from the proto-language, which would be harder to explain given how recent and diverse the creation of the pronominal inflection is compared to the nominal –not to mention, to the thematic inflection– and its case system.

Finally, polarity sensitivity is strictly related to the marked difference between standard negation **ne* and the prohibitive marker *me-h_1 and other negative markers with polarity sensitivity on account of their morphology, *né-éh*$_1$ and *né-íh*$_1$. The last three non-standard negators always appear in non-veridical contexts, whereas **ne* tends to be present in veridical statements, although not exclusively.

In Table 3, I provide a full list of indefinites, numeral 'one' formations, and negative markers –which, according to my view, display polarity sensitivity on account of the presence of instrumental suffixes– and, finally, those negative formations that are the result of negative attraction prompted by instrumental suffixes.

Table 3: IE instrumentals, negation, and indefinites

PIE	Greek	Italic	Indo-Iranian	Other IE
k^{w}o-h$_1$-	πω πώποτε πως	Lat. *quō*		
-k^{w}í-h$_1$-	οὐκί Cf. Myc. *o-u-ki-*	Lat. *nēquī-quam* Osc-Umbr. *neip*	O/YAv. *naēcī-m* Ved. *nákī-m*	Arm. *c‘* / *oc‘* Alb. *s’*
k^{w}e-h$_1$-	πῃ πήποκα	Lat. (*quis*)*-quā-m* lat. *quā* Lat. *nēquā-quam*		
me-h$_1$	μή		IIr.**mā*	Arm. *mi* Alb. *mos*
**** le-h$_1$***				Hitt. *lē*
né-éh$_1$		Lat. *nē*		
né-íh$_1$		Lat. *nī*	Ved. *né-d*	Go. *nei* Pal *nī*, *nit* Lyd. *nid*
né-óh$_1$				Hitt. *natta*
-k^{w}e-ne			Ved. *caná* O/YAv. *-cina*	
k^{w}o-k^{w}ene			Ved. *káś caná*	Go. *ƕas-hun* Arm. *ʔok‘*/ *ʔik‘* Cf. Go. *manna-hun* OWNord. *þey-gi*
(H)oi-no-h$_1$- ***(H)oi-u̯o-h$_1$-***		Lat. *nōn*	 OAv. *aēuuā*	
(H)oi̯-u̯o-k^{w}ene ***(H)oi̯-ko-k^{w}ene*** ***(H)oi̯-no-k^{w}ene***			YAv. *ōiim-cina* MP. *ēzin-* < OP **aiva-cina* Ved. *ékas caná*	 Go. *ains-hun*
k^{w}ó-b^{h}i ***k^{w}ó-t***				Hitt. *kuwapi* Hitt. *kuwat*

Instrumental suffixes chiefly appear in relation with indefinite adverbs, negative markers and conditional conjunctions. I have shown how instrumental suffixes operate in the formation of polarity sensitive indefinite adverbs. Although less clear in Indo-Iranian due to the use of particles, Greek and Latin portray instrumentals providing polarity sensitivity to the indefinite-interrogative stem. Most indefinite adverbs attested in our corpus function either as adverbs of manner or adverbs of time and space (direction), which complies with the semantic values expressed by instrumental markers crosslinguistically. In turn, instrumental suffixes are also employed in the formation of polarity sensitive negatives, reinforcement of standard negation and recharacterization of previous instrumentals, namely the 'nominal' suffix *-h_1*. Most IE languages, with the paramount exception of Ved. *ná*, do not display the simple negative, but negation always appears accompanied by reinforcements of different nature. Finally, there seems as well to be a tight connection between conditionals and instrumentals. Conditional conjunctions, being another type of non-veridical activator, frequently attest instrumental suffixes in their morphology, maybe due to their affinity to non-veridical semantic contexts. Instrumental suffixes are also seen outside the indefinite system, especially in the formation of adverbs of manner, as can bee seen in Gr. -ως, Gr. -τί, Lat. *-ē*, Lat. *-it-er*, *-tim*, etc. In Table 4, I summarize the functions of instrumental suffixes in relation with non-veridical operators such as negation and conditional conjunctions as well as indefinite adverbs.

Table 4: Instrumental suffixes within non-veridical operators and indefinites adverbs

Function	Instrumental suffixes	Examples
Reinforcement of SN	*-o/e-h_1* *-k^wi-h_1*	Hitt. *natta,* Lat. *nōn* Gr. οὐκί, Arm. *oc'*, Lat. *nēquīquam*
Recharacterization of a previous instrumental suffix within SN	*-m, -t*	Lat. *nōn*, Ved. *nákīm* IIr. *nai̯t*, Pal. *nit*
Creation of prohibitives and other polarity sensitive negative markers	*-h_1*, *-ih_1*, *-eh_1*	Gr. μή, Lat. *nī*, Lat. *nē*
Formation of indefinite adverbs with polarity sensitivity	*-h_1*,*-ne, -b^hi*, *-t*	Gr. πω, Ved. *caná*, Hitt. *kuwapi*, Hitt. *kuwat*
Formation of conditional conjunctions	*-ih_1* , *-m*, *-b^hi*	Goth. *jaþþē*, Lat. *sī*, Hitt. *mān*, Goth. *jabai*

As regards Elamite and language contact, I have shown that several features found in Achaemenid Elamite that are not present in earlier stages of the language point to different levels of language contact between Iranians and Elamite speaking communities. This phenomenon might have started by the beginning of the 9th century BCE onwards. Nevertheless, it should be noted that the kind of language contact attested in the Royal Inscriptions and administrative archives are under a form of linguistic interference of a written nature, given that Elamite enjoyed a much longer writing tradition compared to Old Iranian. Therefore, transfer of morphological and syntactical patterns from Old Iranian into Achaemenid Elamite took place. This was carried out by Iranian scribes who would have learned Achaemenid Elamite as a second language for administrative purposes. I mentioned that some of the morphological features found in Achaemenid Elamite negation and indefinites and triggered by Old Iranian contact are the gradual reduction of negatives into a sole negative marker: *in-gi* /*in-ri* /*im-me*/ *in-ni* > *in-ni*; the development from a (focus-based) constituent negation into a fully operational sentential negative marker; the creation of a negative coordinator (*a-ak in-ni*) used in correlative negation (*in-ni…a-ak in-ni*; similarly, *anu…a-ak anu*), following an Old Iranian pattern seen, for instance, in Old and Young Avestan: Av. *nōiṯ…naēda*/*naēδa*; the use of *ki-ir* as an indefinite determiner (*specific* indefinite, similarly to OP *aiva* > MP -*ēw*); the compound morphology of the inanimate indefinite pronoun *aš-ki* with the numeral 'one' lit. "part-one" (cf. MP -*ēw*), maybe modeled after OP **aiva-ci* > MP *ēč* "anything"; the use of the 'strong' negative polarity item *ak-ka$_4$-ri* "no any" as an existential indefinite "some", similarly to *ki-ir* after OP *aiva*; the use of the relative pronoun *ak-ka$_4$* /*ak-ka$_4$-ia* for rendering an Old Persian indefinite relative (**ka-* + *haya*), suggesting that the Elamite version of the Bīsotūn inscription might be actually following an Old Iranian (maybe Old Persian) version that has not been preserved; and, finally, the adaptation of *kaš*, originally an OP indefinite, as a resumptive pronoun in Achaemenid Elamite. Lastly, I mentioned one instance more of language contact: namely the construction of Old Persian indefinite relatives *kā…haya* "whoever", built up after Semitic constructions based on the indefinite-interrogative stem plus the relative. Through various stages of linguistic leveling, one language can gradually acquire morpho-syntactic features taken from another. As we have seen, negation is no exception in this regard and typological features of negation can be transferred from one language to another as the result of language contact.

In conclusion, with this dissertation I hope to have provided a contribution towards a deeper understanding of negation and polarity triggers in relation to indefinites in the ancient IE languages, concretetly focusing on the study of indefinites and their polarity sensitive distribution, secondly, on the morphological and syntactic behavior of negation as one of the most important non-veridical operators, and, finally, on the phenomena of reinforcement and renewal of standard negation, namely by means of instrumental suffixes.

Typologically speaking, the main functions performed by IE indefinites –according to Haspelmath' s (1997) semantic map– are the negative polarity function and the free-choice function, given that existential and other types of *specific* indefinites, which represent the lowest levels of indefiniteness, are rarely attested. Symmetric negation is evidently the main trigger of polarity as shown by the two types of IE negatives: standard negation and the prohibitive marker. Similarly to other world languages, early IE languages show as non-veridical semantic contexts, as defined by Giannakidou (1998), not only negation, but also conditionals, interrogatives, etc, all of them triggering polarity, i.e. a widespread linguistic phenomenon that consists in the appearance of certain morphological elements –i.e. indefinites, but not exclusively– that have semantic deficit in their distribution within non-veridical contexts.

Crosslinguistically attested, the innate affinity between indefinite adverbs and non-veridical operators is further accomplished in IE languages by the use of instrumental suffixes either directly added to the interrogative stem –as in the case of adverbs– or to particles of pronominal origin –as in the case of pronouns. Furthermore, the ontological category of person displays a distribution 'more' sensitive to polarity, especially given that they can appear as bare-interrogatives functioning as indefinites without the aid of any kind of particle. The data supports the fact that IE languages resort to the instrumental case –and its suffixes– for the reinforcement of negatives, the creation of non-inherited conditional conjunctions, and the formation of polarity sensitive indefinites (especially adverbs). On the other hand, the use of the accusative case as reinforcement of non-veridical activators such as negation must be understood as a later development in the IE historical languages.

Not all indefinites are 'strong' polarity items, i.e. only licensed by negation. Normally, indefinite adverbs, which have incorporated an instrumental suffix to their stem or to an indefinite particle (cf. Ved. *caná*), clearly appear to be 'more' polarity

sensitive, there being different levels of sensitivity to negation and other non-veridical semantic contexts.

Moreover, early IE languages perfectly portray the natural tendency of world languages to renew and reinforce their standard negative markers as envisioned by Jespersen (1917): there is a constant –sometimes cyclic– renewal of negative markers that, in most IE languages, resort to instrumental suffixes to accomplish this.

IE languages employ negative polarity indefinites for the expression of negated indefinite entities ("not any") instead of negative indefinites ("no one, nothing"), which are not attested in all IE languages and, when they are, show different types of grammaticalization. Therefore, it seems that the negative polarity type of indefinites chronologically precede the NQ type.

Finally, I would like to stress the idea of multifunctionality, as defined by Haspelmath (1997), carried out by indefinites in the earliest stages of each of the IE linguistic branches. It seems that with the IE dialectalization the specialization of interrogative-indefinite stems, often through the use of particles, took place and, later on, the creation of new indefinite series, most of the time by means of inherited material, helped to narrow down the number of functions that each indefinite series could perform.

REFERENCES

Abolghassemi*, M (2008), A Historical grammar of the Persian language*, Teheran: SAMPT Press.

Adams, D. Q. (2013), *A dictionary of Tocharian B*, Amsterdam-Atlanta: Rodopi B.V.Editions.

Adams, D. Q.- Mallory, J.P., (2006), *The Oxford Introduction to Proto-Indo-European and the Proto-Indo-European World*, Oxford: OUP.

Adrados, F. R. (1975), *Lingüística Indoeuropea*, Madrid: Gredos.

Adrados, F. R.- Bernabé. A.-Mendoza, J. (1995-1998), *Manual de lingüística indoeuropea* I-III, Madrid: Ediciones Clásicas.

Agud Aparicio, A. - Mª P. Fernández Álvarez (1982), *Manual de lengua gótica*, Salamanca: Ediciones Universidad de Salamanca.

Aliyari Balboghani, S. (2015), *The Elamite version of Darius the Great's Inscription of Bisotun*, Nashr-e Markaz: Nashr-e Markaz Publishing Co.

Álvarez-Mon, J.- Garrison, M. B. (eds) (2011), *Elam and Persia*, Winona Lake.

Van Alsenoy, L. -van der Auwera, J. (2014), "On the typology of negative concord", Studies on Language, 40: 3. pp. 273-512.

Aufrecht, Th. (1877), *Die Hymnen des Ṛigveda*, Bd. Mandala 1-6/ Bd. II Mandala 7-10. Bonn.

Aura Jorro, F. *Diccionario micénico* : (DMic.), Madrid: CSIC.

Bae, Ch.-H. (2001), *Comparative studies on king Darius's Bisitun inscription.* PhD dissertation, Harvard University.

Baldi, P. (1999) 2002, *The Foundation of Latin*, Berlin/New York: Mouton de Gruyter.

Baumbach, L- Chadwick, J. (1963), "The Mycenaean Greek Vocabulary", Glotta 41, 3-4, 157-271.

Bartonek, A. (2003), *Handbuch des mykenischen Griechisch*, Heidelberg : Winter,

Bernini, G- Ramat, P. (1996), *Negative sentences in the languages of Europe, a typological approach*, Berlin/New York: de Gruyter.

Bhat, D.N.S (2004), *Pronouns*, Oxford: OUP.

Bartholomae, C. (1904), *Altiranisches Wörterbuch*, Strassburg: Verlag Von Karl J. Trübner.

Beekes, R. (2003), *Historical phonology of classical Armenian.* In R. Kortlandt, *Armeniaca: comparative notes*, Ann Arbor, Caravan Books, pp. 133-211.

(2010), *Etymological dictionary of Greek*, vol 1-2, Boston–Leiden: Brill.

(2011), Comparative Indo-European Linguistics: an introduction, Amsterdam/Philadelphia: John Benjamins Publishing Company.

Bernabé, A. (1984), "Lingüística histórica y filología, un diálogo necesario". RSEL14, 2, pp. 291-300.

Bernabé & Luján (2006), *Introducción al Griego Micénico*, Zaragoza, Prensas Universitarias de Zaragoza.

Berenguer, J. A. (2000), *Estudio sobre las partículas indoeuroepas con base consonántica y laringal*, Madrid, CSIC.

Bernard, Ch. (forthcoming), "On the etymology of Persian yak 'one'". pp. 37-51.

Berninini, G. & Ramat, P. (1996), *Negative Setences en the languages of Europe*, Berlin-New York: Mouton de Gruyter.

Bertochi, A.- M. Maraldi- A. Orlandini, (2010), "Quantification". In P. Baldi- P. Cuzzolin, *New perspectives on historical Latin syntax*: *volume 3, Constituent syntax: quantification, numerals, possession, anaphora*, Berlin/New York: De Gruyter Mouton. pp. 19-173.

Bertrant, N. (2010), *L'ordre des mots chez Homère: structure informationnelle, localisation et progression du récit*, PhD dissertation, Université Paris-Sorbonne.

Bickel, B. (2010), "Capturing particulars and universals in clause linkages: a multivariate analysis". In Isabelle Bril (ed.), *Clause-hierarchy and clause-linking: the syntax and pragmatics interface*. Amsterdam, Philadelphia: John Benjamins.

Bile, M. (1988), *Le dialecte crétois ancien : étude de la langue des inscriptions, recueil des inscriptions postérieures aux IC*, Paris : P. Geuthner.

Blümel, W. (1982), *Die aiolischen Dialekte, Phonologie und Morphologie der inschriftlichen Texte aus generativer Sicht*, Göttingen: Vandenhoeck & Ruprecht.

van Embde Boas, E.-Rijksbaron, A.- Huitink, L.- de Bakker, M. (2019), *Cambridge Grammar of Classical Greek*, Cambridge, CUP.

Bond, O (2011), "Negation in clause linkages", Language Documentation and Description, 9. pp. 77-120.

Bopp, F. (1845), *A comparative grammar of the Sanskrit, Zend, Greek, Latin, Lithuanian, Gothic, German, and Slavonic languages*, vol. II, trans. by H. H. Wilson,

London: Madden and Malcolm.

Brandenstein, W.& Mayrhofer, M. (1964), *Handbuch des Altpersischen*, Wiesbaden.

Briceño, J. (2017), *La negación declarativa NAI̯: del proto-indoeuropeo al antiguo persa y su relación con el elamita aqueménida*, in Álvarez-Pedrosa, Juan Antonio-María Carmela Benvenuto-Flavia Pompeo (eds.), *Del Indo al Egeo: relaciones culturales y lingüísticas en el interior del imperio aqueménida*, Madrid: Guillermo Escolar Editor.

Brixhe, C. (1997). "Les clitiques du néo-phrygien". In Gusmani, R., M. Salvini, and P. Vannicelli. *Frigi e frigio: Atti del 1◦ Simposio Internazionale*. Roma: Consiglio Nazionale delle Ricerche. pp. 41–70.

(2008), *Phrygian*. In R. D. Woodard (ed.), *The ancient languages of Asia Minor*, Cambridge, CUP. pp.69-80.

Brunner, C. J. (1977), A *Syntax of Western Middle Iranian*, Delmar, NY, Caravan Books.
Buck, C. D. (1955), *The Greek dialects*, Chicago: University of Chicago Press.

Cameron, G. (1948), *Persepolis Treasury Tablets*, Chicago: The University of Chicago Oriental Institute Publications.

Cardona, G. (2017), "The documentation of Indic". In Klein, J.-B. Joseph, M. Fritz (eds), *Handbook of Comparative and Historical Indo-European Linguistics*, Berlin/Boston: de Gruyter Mouton, Vol.1. pp. 309-325.

Chadwick, J- Ventris, M. (1973), *Documents in Mycenaean Greek*, Cambridge: CUP.

Chantraine, P (1964), *Morphologie historique du grec*, Paris: Klincksieck.

(1968), *Dictionnaire étymologique de la langue grecque: histoire des mot*s, Paris: Klincksieck.

Chatzopoulou, K (2019), *Negation and Nonveridicality in the History of Greek*, Oxford: OUP.

Clackson, J. (1994), The linguistic relationship between Armenian and Greek, Oxford/ Cambridge, Ma: Backwell.

(2004/2005), "Review of Kortlandt, Armeniaca 2003", Annual of Armenian Linguistics 24-25, pp. 153-158.

(2007), *Indo-European Linguistics: an introduction*, Cambridge: CUP.

Claflin, E. F. (1905), *The Syntax of the Boeotian Dialect Inscriptions*, Baltimore: The Lord Baltimore Press.

Collins, C. -Postal, P. (2014), *Classical NEG Raising: an essay on the syntax of*

negation, London/Cambridge, MIT Press.

Colvin, S. (2016), "The modal particle in Greek", The Cambridge Classical Journal, 62, pp. 65-84.

Cowgill, W. (1960), *Greek ou and Armenian oč*, Language, 36, 3, pp. 347-350.

(2006), "The cases of Germanic pronouns and strong adjectives". In J. Klein (ed.), *The Collected Writings of Warren Cowgill*, Ann Arbor: Beech Stave, pp. 519-34.

Crespo, E.- Conti, L.- H. Maquieira (2003), *Sintaxis del griego clásico*, Madrid: Gredos.

Crespo, E. (2015), "Adverbios de foco en griego clásico", Monografías de Filología Griega 25.

Croft, W. (1991) *Syntactic categories and grammatical relations*, Chicago: Chicago UP.

Curtis, M. C. (2018), "The dialectology of Albanian". In Klein, J.-B. Joseph, M. Fritz (eds), *Handbook of Comparative and Historical Indo-European Linguistics*, volume 3, Berlin/Boston: de Gruyter Mouton, pp.1800-11.

Dahl, Ö. (1979), "Typology of sentence negation", Linguistics, 17(1-2), pp. 79-106.

(2010). *Typology of negation*. In L. Horn, *The Expression of Negation*. pp. 9–38.

DĀMOS: Database of Mycenaean at Oslo, Department of Philosophy, Classics, History of Art and Ideas, Faculty of Humanities, University of Oslo.

Dayal, V. (1997), "Free choice and -ever: identity and free choice readings", in the Proceedings of Semantics and Linguistic Theory (SALT) VII.

Delbrück, B. (1888), *Altindische Syntax*, Darmstadt: Wissenschaftliche Buchgesellschaft.

(1893-1900), *Vergleichende Syntax der indogermanischen Sprachen*, Bn. 1-3. Cambridge, CUP.

Denizot, C. (2013), "Deux coordinations négatives en grec ancien : différences sémantiques et pragmatiques entre οὔτε et οὐδέ". In J. François- P. Larrivée-D. Legallois- F. Neveu (eds.), *La linguistique de la contradiction*, Peter Lang, Collection Gramm-R. pp. 33-51.

(2014), ""Personne" et "rien" dans les poèmes homériques : emplois de οὐδείς et de οὔ τις". C. Denizot- E. Dupraz (eds..), *Latin quis/qui, grec τίς/τις :parcours et fonctionnements*, Mont-Saint-Aignan, PURH. pp. 71-90.

Denniston, J. D. (1938), "A. Minard: Deux relatifs homériques. Pp. 96. (Extrait de la Revue de Philologie, Tome XI.) Paris: Klincksieck, 1937 Paper", The Classical Review, 52, 2, p. 83.

(1934) [1954], *The Greek particles*, Oxford: Clarendon.

Diakonoff , I. G- Neroznak, V. P. (1985), *Phrygian*, Delmar, N.Y : Caravan Books.

Drew-Bear, T, -A. Lubotsky, M. Üyümez (2008), "Three New Phrygian inscriptions". Kadmos 47: 109−116.

Dryer, M (1988), *Universals of negative position*. In Hammond, M.- Edith Moravcsik- Jessica Wirth (eds), *Studies in Syntactic Typology*. Amsterdam/Philadelphia, John Benjamins Publishing Compnay. pp. 93-124

(2006), "Descriptive theories, explanatory theories, and Basic Linguistic theories". In Felix Ameka- Dench, Alan- Evan, Nicholas (eds), *Catching Language, the standing challenge of grammar writing*, pp. 207-234.

(2011) *Negative Morphemes*. In Dryer, M and Martin Haspelmath (eds), *The World Atlas of Language Structures Online*. München: Max Planck Digital Library.

Dubois, L. (1986) *Recherches sur le dialecte arcadien,I Grammaire*, Louvain-la-Neuve, Université de Paris X-Nanterre.

Duhoux, Y. (1999), "La séparation des mots en linéaire B". In *Floreant Studia Mycenaea*. *Akten des X. Internationalen Mykenologischen Colloquiums in Salzburg vom 1.-5. Mai 1995* (ÖAW, Philosophisch-historische Klasse, Denkschriften 274), S.Deger-Jalkotzy – S. Hiller – O. Panagl (eds.), Wien 1999, pp. 227-236.

Duhoux, Y- Morpurgo, A. (2008-2014), *A Companion to Linear B: Mycenaean Greek Texts and their World*, vol. 1-3, Y., Louvain-la-Neuve /Dudley, MA: Peeters.

Dunkel, G (1982), *The original syntax of conjunctive *-k^we*, Sprache 28:129-43.

(1997), "Delbrück and the Instrumental-Ablative in *-*m*". In Crespo, E.- García J. L. Ramón, *Berthold Debrück y la sintaxis indoeuropea hoy: Actas del Coloquio de la Indogermanische Gesellschaft, Madrid, 21-24 de septiembre de 1994*, Madrid/Wiesbaden: Ediciones de la UAM-Dr. Ludwig Reichert Verlag, pp.63-83.

(2008) "Chips from an aptotologist's workshop II", in Chomolangma, Demawend und Kasbeck , Halle/Saale 2008, pp. 403-12.

(2014), *Lexicon der indogermanischen Partikeln und Pronominalstämme*. Bn. 1-2, Heildelberg: Universitätsverlag Winter.

Durkin-Meisterernst, D (2012), *Grammatik des Westmitteliranischen (Parthisch und Mittelpersisch)*, Vienna: Verlag der Österreichischen Akademie der Wissenschaften.

Egetmeyer, M. (2010), *Le dialecte grec ancien de Chypre*, vol. 1-2, Berlin: De Gruyter.

Ernst, T. (2009), "Speaker Oriented Adverbs." Natural Language and Linguistic Theory, 27:497–544.

Ernout, A.- Meillet, A. (2001), *Dictionnaire étymologique de la langue latine*, *Histoire des mots*, Paris: Klincksieck.

Fear, D. (2015), "Utā pavastāyā utā carmā grftam āha – Written on clay and parchment. Old Persian writing and allography in Iranian", in S. Enderwitz- R. Sauer (eds), Communication and Materiality. Written and Unwritten Communication in Pre-Modern Societies, Berlin-Boston: De Gruyter, pp. 73-92.

von Fintel, K. (1999), "NPI-licensing, Strawson-entailment, and context-dependency". Journal of Semantics 16, 97–148.

Fortson, B. W. IV (2010), *Indo-European language and culture: an introduction*, Malden, MA: Blackwell.

(2011), "The Historical background to Latin within the Indo-European Language family". In J. Clackson (ed.), A Companion to the Latin Language, Chichester, West Sussex; Malden, MA : Wiley-Blackwell, pp. 199-2019.

(2017), "The dialectology of Italic". In Klein, J.-B. Joseph, M. Fritz (eds), Handbook of Comparative and Historical Indo-European Linguistics, Berlin/Boston: de Gruyter Mouton, Vol. 2, pp. 835-858.

Friedrich, P. (1975), *Proto-Indo-European Syntax*. *The Order of Meaningful Elements*. (Journal of Indo-European Studies Monograph Series 1). Butte: Montana College of Mineral Sciences.

Fucci, D. (2015), "Labiovelars in Mycenaean Greek: some presumably deviant data", in S. Cruz (ed.), *Nonnvlla spes ivventvtis: nuevas contribuciones en Estudios Clásicos*, Actas del V Congreso Nacional Ganimedes de Investigadores Noveles de Filología Clásica, Salamanca 21-24 de Marzo, Salamanca: Ediciones Universidad de Salamanca, pp. 169-178.

Frisk, H. (1969), *Griechisches Etymologisches Wörterbuch*, Heidelberg: Carl Winter Universitätsverlag.

García Ramón, J. L. (2016), "Il Greco Miceneo", in M. Perna- M. de Freo, Manuale de epigrafia micenea, Introduzione allo studio dei testi in lineare B, Padova: Libreriauniversitaria edizioni, pp. 211-244.

García Teijeiro, M. (1994), "-qe no coordinativo en micénico y *kwe condicional, Actas VIII Congreso I, pp. 121-7.

Gardiner, A. H. (1904), "The word  Zeitschift für Ägyptische Sprache und Altertumskunde 41, 130-5.

Garnier, R. (2014a) "Italique commun *né=χe=ái̯ud « jamais de la vie »" Wekwos 1:93–109.

(2014b) "Nouvelles réflexions sur l'effet-Kortlandt". Glotta, 90, 140-60.

Garrett, A. (1994), "Relative Clause Syntax in Lycian and Hittite". Die Sprache 36.29–69.

Geldner, K. (1889-1896), Avesta, the Sacred Books of the Parsis, Stuttgart: W. Kohlhammer.

Gershevitch, I. (1979), "The Alloglottography of Old Persian," Transactions of thePhilological Society of London: 114-190.

Giannakidou, A (1998), *Polarity Sensitivity as (Non)Veridical Dependency*, Amsterdam/Philadelphia: John Benjamins Publishing Company.

(2001a), "Varieties of Polarity Items and the (non)veridicality hypothesis", in Jack Hoeksema, Hotze Rullmann, Victor Sanchez-Valencia, and Ton van der Wouden (eds), Perspectives on Negation and Polarity, John Benjamins Publishing Company, Amsterdam-Philadelphia. 99-129.

(2001b), "The meaning of free-choice", Linguistics and Philosophy, 659-735.

(2006), "N-Words and Negative Concord", in Martin Everaert- Henk van Riemsdijk (Eds), The Blackwell Companion to Syntax, ch. 45, pp. 327-391.

(2011), "Positive polarity items and negative polarity items: variation, licensing, and compositionality", in C. Maienborn -K. von Heusinger - P. Portner (eds.) *In Semantics: An International Handbook of Natural Language Meaning*, Berlin: Mouton de Gruyter. pp. 1660-1712.

Giannakidou, A- Cheng, L. L. (2006), "(In)Definiteness, Polarity, and the Role of wh-morphology in Free Choice". Journal of Semantics 23: 135–183.

Giannakidou, A- Zeijlstra, H. (2017), *The Landscape of Negative Dependencies: Negative Concord*, *N-Words, Split Scope*. In M. Everaert & H. van Riemsdijk (eds.). *The Blackwell Companion to Syntax*, 2nd Edition. London: Blackwell.

Gianollo, Ch. (2017), "Focus-sensitive negation in Latin". In *Generative approaches to Latin syntax*, Catalan Journal of Linguistics (special issue).

(2018a), *Indefinites and negation in Ancient Greek*, DiGS 20, University of York, 20.6.2018.

(2018b), *Indefinites between Latin and Romance*, Oxford: OUP.

Givón, T. (1978), "Negation in language: Pragmatics, function, ontology", Syntax and Semantics 18, pp. 59-116

(2001), *Syntax*, Volume 1, Amsterdam/Philadelphia: John Benjamins Publishing Company.

Godel, R. (1975), *An introduction to the study of Classical Armenian*. Wiesbaden: Reichert.

Goldstein, D. (2013), "Iterated modal marking and polarity focus in Ancient Greek", Transactions of the Philological Society Volume 111:3, 354–378

Gonda, J. (1951), *La place particule négative NA dans la phrase en vieil indien*, Leiden: Brill.

(1954) "The history and original function of the Indo-European particle *k^{w}e, especially in Greek and Latin", Mnemosyne 4: 177-214 and 265-96.

(1957), "The use particle ca", Vāk 5, 1-73.

Gotō, T. (2013), *Old-Indo-Aryan morphology and its Indo-Iranian background.* Vienna: Österreichischen Akademie der Wissenschaften.

(2017), "The morphology of Indic (old Indo-Aryan)". In Klein, J.-B. Joseph, M. Fritz (eds), *Handbook of Comparative and Historical Indo-European Linguistics*, volume 1, Berlin/Boston: de Gruyter Mouton, pp. 344-377.

Greenberg, J. (1963), *Some Universals of Grammar with Particular Reference to the Order of Meaningful Elements*, in Greenberg, Joseph H. (ed.), Universals of Human Language, 73-113. Cambridge, Mass: MIT Press.

Grillot- Susini, F. (1987), *Éléments de grammaire élamite*, Paris: Editions Recherche sur les Civilisations.

Grillot-Susini, F. (2008), *L' Élamite. Éléments de grammaire*, Paris: Geuthner Manuels.

Grillot-Susini, F.– Herrenschmidt, C.– Malbran-Labat, F. (1993), "La version élamite de la trilingue de Behistun: une nouvelle lecture.", *Journal Asiatique* 281, 1-2, 19-59.

Hackstein, O. (2016/2017), "Multipartite Negation Markers and Phasal Adverbs in Ancient Indo-European Languages", MSS, 70/2, 215–253.

Haegeman, L (1995), *The syntax of negation*, Cambridge: CUP.

Harðarson (2017), "The morphology of Germanic". In in Klein, J.-B. Joseph, M. Fritz (eds), *Handbook of Comparative and Historical Indo-European Linguistics*, volume 2, Berlin/Boston: de Gruyter Mouton, pp. 913-954.

Hansen, M-B.- Visconti, J. (2014), *The Diachrony of Negation*, Amsterdam/Philadelphia: John Benjamins Publishing Company.

Hallock, R. T. (1969), *Persepolis Fortification Tablets*, Chicago: University of Chicago Press.

de Haan, F. (1997), *The interaction of modality and negation*, London/New York: Routledge.

Hamilton Fowler, F. (1896), *The negatives of the Indo-European languages*, Chicago: The University of Chicago Press.

Haspelmath, M. (1995) *Diachronic sources of "all" and "every*". In Emmon BachEloise JelinekAngelika KratzerBarbara H. Partee (eds), *Quantification in Natural Languages*, 363-382, Dordrecht: Springer.

(1997), *Indefinites pronouns*, Oxford: OUP.

(2003), "The geometry of grammatical meaning: semantic maps and cross-linguistic comparison", in: Tomasello, Michael (ed.), The new psychology of language, vol. 2. Mahwah, NJ: Erlbaum, 211–242.

(2007), "Coordination." In: Shopen, Timothy (ed.) *Language typology and syntactic description, vol. II: Complex constructions*. 2nd ed. Cambridge: CUP. 1-51.

(2010), "Framework-free grammatical theory". In: Heine, Bernd- Heiko Narog *The Oxford Hanbook of Linguistic Analysis*, Oxford: OUP. 341-365.

(2011), *Indefinite pronouns*. In Dryer, M and Martin Haspelmath (eds), The World Atlas of Language Structures Online. München: Max Planck Digital Library.

Hearn, R. (2017), "Wh-questions in Tocharian and implications for PIE reconstruction", April 24. (Handout)

Held, H., Jr. (1957), *The Hittite Relative Sentence*. (Language Dissertation No. 55). Baltimore: Linguistic Society of America.

Henkelman, W. F. M. (2008), The other gods who are, Studies in Elamite-Iranian Acculturation based on the Persepolis Fortification texts, Leiden: Nederlands Instituut voor Het Nabije Oosten,

(2011), *Cyrus the Persian and Darius the Elamite: a case of mistaken identity*, in Rollinger, R- B. Truschnegg- R. Bichler (eds.), *Herodot und das Persische Weltreich* / *Herodotus and the Persian Empire*, Wiesbaden: Harrassowitz Verlag. 577-634.

Henkelman, W.F.M- Stolper, M., (2009) *Ethnic Identity and Ethnic labelling at Persepolis: the Case of the Skudrians*, in P. Briant- M. Chauveau (eds), *Organisations*

des pouvoirs et contacts culturels dans les pays de l'Empire achéménide, Paris: Persika14. 271-329.

Hettrich, H. (1988), *Untersuchungen zur Hypotaxe im Vedischen*, Berlin: de Gruyter.

Hinz, W- H. Koch (1987), *Elamisches Wörterbuch*, Band I-II, Berlin: Verlag von Dietrich Reimer in Berlin.

Hock, H. H. (2015), "Some issues in Sanskrit syntax". In Hock, H. H. (ed.), *Sanskrit Syntax*, *Selected papers presented at the seminar on Sanskrit syntax and discourse structures*, 13-15 June 2013, Université Paris Diderot. pp. 1-52.

Hoffmann, K. (1967), *Der Injunktiv im Veda. Eine synchronische Funktionsuntersuchung*. Heidelberg: Winter.

Hoffmann, K.-Forssman, B. (1996), *Avestische Laut-und Flexionslehre*, Innsbruck.

Hoffner, H. A.- Melchert, H. C., *A grammar of the Hittite language*, Winona Lake, Ind.: Eisenbrauns.

Homer (1995), *Odyssey*, books 1-12, with an English translation by A. T. Murray, revised by G. E. Dimock, Cambridge, MA: Harvard University Press.

(1995) *Odyssey*, books 13-24, with an English translation by A. T. Murray, revised by G. E. Dimock, Cambridge, MA: Harvard University Press.

(1998), *Homerus Ilias*, rhapsodiae I-XII, ed. M. West, Stutgard : Teubner,

(1999), *Iliad*, books 1-12, with an English translation by A. T. Murray, revised by W. F. Wyatt, Cambridge, MA: Harvard University Press.

(1999), *Iliad*, books 13-24, with an English translation by A. T. Murray, revised by W. F. Wyatt, Cambridge, MA: Harvard University Press.

(2000), *Homerus Ilias*, rhapsodiae XIII-XXIV, ed. by M. West, München/Leipzig: KG Saur.

(2017), *Homerus Odyssea*, ed. by M. West, Berlin/Boston: de Gruyter.

Horn, L. R. (1978), *Remarks on neg-raising*. In Peter Cole (ed.), *Pragmatics*, New York: Academic Press. pp. 129–220.

(2001), *A Natural History of Negation,* Stanford: CSLI.

Horrocks, G. (2010), *Greek: a history of the language and its speakers,* Chichester : Wiley-Blackwell.

(2014), "Ouk΄ismen Oudén: Negative concord and negative polarity in the history of Greek", Journal of Greek Linguistics, Vol. 14 Issue 1, pp. 43-83.

Huehnergard, J. (1997), *A Grammar of Akkadian*, Atlanta: Scholars Press.

Huggard, M. (2015), *Wh-words in Hittite: A Study in Syntax-Semantics and Syntax-Phonology Interfaces*, PhD. Dissertation, University of California, Los Angeles.

Humbach, H. (1991), *The Gāthās of Zarathushtra, and the othe Old Avestan texts*, Heidelberg: Carl Winter Universitätsverlag.

Jägger, A. (2008), *History of German negation*, Amsterdam: John Benjamins Publishing Company.

(2010) "'Anything' is 'nothing' is 'something': On the diachrony of polarity types of indefinites", Natural Language & Linguistic Theory, Vol. 28, No. 4), pp. 787-822.

Jamison, S. W., (2004), "Sanskrit". In R. D. Woodard, *The Cambridge Encyclopedia of World's Ancient languages*, Cambridge, CUP. pp. 673-699.

Jamison, S.W.- Brereton, J. P. (2014), *The Rigveda, the earliest religious poetry of India*, vol 1-3, Oxford: OUP.

Jannaris, A. (1897), *An historical Greek grammar chiefly of the Attic dialect as written and spoken from classical antiquity down to the present time, founded upon the ancient texts, inscriptions, papyri and present popular Greek*, London/ New York: Macmillan Co.

Janse, M. (2002), "Aspects of Pontic grammar" (review), Journal of Greek Linguistics 3, 203-231.

Jasanoff, J. (2003), *Hittite and the Indo-European verb*, Oxford: OUP.

(2017) "The impact of Hittite and Tocharian: Rethinking Indo-European in the 20th century and beyond", in Klein, J.- B. Joseph-M. Fritz (eds), *Handbook of Comparative and Historical Indo-European Linguistics*, Berlin/Boston: de Gruyter, pp. 220-238

Jespersen, O. (1917), *Negation in English and other Languages*, Copenhagen: Bianco Lunos Bogtrykkeri.

Jiménez Delgado, J.M. (2016), *Sintaxis del griego micénico*, Sevilla : Editorial Universidad de Sevilla.

Joseph, B. (1991), "A diachronic phonological solution to the syntax of Vedic negative particles". In H. H. Hock (ed.), *Studies on Sanskrit Syntax*, Delhi: Motilal Banarsidass Publishers PVT. LTD. pp. 113-122.

Joüon, P. - Muraoka, T. (1991), *A grammar of Biblical Hebrew*, volume 2, part 3: syntax. Roma: Editrice Pontificio Instituto Biblico.

Jügel, T. (2017), *The syntax of Iranian*, in J. Klein et. al., *Handbook of Comparative and*
Historical Indo-European Linguistics, vol. 1, Berlin-Boston: De Gruyter Mouton. 549-566.

Kahrel, P (1996), *Aspects of negation*, Ph.D. dissertation, University of Amsterdam.

Khačikjan, M. (1998), *The Elamite Language*, Roma: Consiglio Nazionale delle Ricerche.

Kellens, J-Pirart, E. (1988), *Les textes vieil-avestique*, volume 1, *Introduction, texte et traduction*, Wiesbaden: Dr. Ludwig Reichert Verlag.

Kellens, J-Pirart, E. (1990), *Les textes vieil-avestique*, volume 2, *Répertoires gramaticaux et lexique*, Wiesbaden: Dr. Ludwig Reichert Verlag.

Keydana, G. (2018), *Proto-Indo-European Syntax*, in Klein, J.- B. Joseph-M. Fritz (eds), Handbook of Comparative and Historical Indo-European Linguistics, Berlin/Boston: de Gruyter, pp. 2195-2228.

King-Thomson, (1907), *The sculptures and inscription of Darius the great on the rock of Behistûn in Persia*, London: British Museum.

Kiparsky, P. (2005) "The Vedic Injunctive: Historical and Synchronic Implications". The Yearbook of South Asian Languages and Linguistics, pp. 219–235.

Klein, J. (1985), *Toward a discourse grammar of the Rigveda*. Vol. I, Coordinate Conjunction. Part 2, u; átha, átho, ádha, ád, va, ápi, Heidelberg, Carl Winter Universitätsverlag.

(1988), "Coordinate Conjunction in Old Persian", JAOS, 108, 3, 387-417.

(1992), "Gothic -(*u*)*h*: a synchronic and comparative study", Transactions of the Philological Society, 91, 1, 1-62.

(1997), "Indefinite Pronouns, Polarity, and Related Phenomena in Classical Armenian. A Study Based on the Old Armenian Gospels". Transactions of the Philological Society 95: 189−245.

(2011), "Negation and Polarity in the Greek, Gothic, Classical Armenian, and Old Church Slavic Gospels: A Preliminary Study". In E. Welo (ed.), *Indo-European syntax and pragmatics: contrastive approaches*. Oslo: University of Oslo Press, pp. 131-154.

(2017), "The syntax of Classical Armenian", In Klein et al., *Handbook of Comparative and Historical Indo-European Linguistics*, vol. 2, Berlin-Boston: De Gruyter Mouton, pp.1097-1115.

Klima, E. (1964), *Negation in English*. In J. Fodor and J. Katz (eds), *The Structure of Language*. Englewood Cliffs, Prentice Hall. pp. 246-323.

Klingenschmitt, G (1994), *Das Albanische als Glied der indogermanischen Sprachfamilie (Tischvorlage)*. In: Jens E. Rasmussen and Benedicte Nielsen (eds.). In honorem Holger Pedersen. Wiesbaden: Reichert, pp. 221−233.

Kloekhorst, A. (2008), *Etymological dictionary of the Hittite inherited lexicon*, Leiden/Boston: Brill.

(2016) "The Anatolian stop system and the Indo-Hittite hypothesis". Indogermanische Forschungen 121, 213–247.

(2018) "Anatolian evidence suggests that the Indo-European laryngeals *h_2 and *h_3 were uvular stops", Indo-European Linguistics 6, 69-94.

Kölligan, D. (2006), "Armenian *o*(*v*)". In Kölligan D. -Sen, R. (eds.), Oxford University Working Papers in Linguistics, Philology & Phonetics, vol. 11.

Kotwal, F. M.- P. G. Kreyenbroek (1992), *The Hērbedestān and Nērangestān*, volume I, Hērbedestān, Paris: Association pour l' avancement de études iraniennes.

Kümmel, J. (2018) "The morphology of Indo-Iranian", in Klein, J.- B. Joseph-M. Fritz (eds), *Handbook of Comparative and Historical Indo-European Linguistics*, Berlin/Boston: de Gruyter, pp. 1888-1924.

Kuiper, F. B. J. (1987), "Avestan *naēδa* and *maδa*", Indo-Iranian Journal 30, 209-212.

Krisch, T. (1998), *Zum Hyperbaton in altindogermanischen Sprachen*. In: Wolfgang Meid (ed.), *Sprache und Kultur der Indogermanen*. Akten der X. Fachtagung der Indogermanischen Gesellschaft, Innsbruck, 22.−28. September 1996. Innsbruck: Institut für Sprachwissenschaft
der Universität, 351−384.

Kulikov, L. (2017), "The syntax of Indic". In J. Klein et. al., *Handbook of Comparative and Historical Indo-European Linguistics*, vol. 1, Berlin-Boston: De Gruyter Mouton. pp. 377-409.

Labov, W. (1972). "Negative Attraction and Negative Concord in English Grammar". Language (48), pp. 773-818.

Ladusaw, W. (1980), *Polarity Sensitivity as Inherent Scope Relations*. New York: Garland.

(1996), *Negation and polarity items*. In: S. Lappin (ed.). The Handbook of Contemporary Semantic Theory. Oxford: Blackwell. pp. 321–341.

Laka, I. (1990), *Negation in Syntax: On the Nature of Functional Categories and Projections*, Doctoral dissertation, MIT, Dept. of Linguistics and Philosophy.

De Lamberterie, Ch. (2013), "Grec, phrygien, arménien, des anciens aux modernes", Journal des savants, 3-69.

Lecoq, P. (1997), *Les inscriptions de la Perse achéménide*, [Paris]: Gallimard.

(2017), *Les livres de l'Avesta : les textes sacrés des zoroastriens ou Mazdéens*, Paris : Les editions du CERF.

Lee Johnson, E. (1917), *Historical grammar of the Ancient Persian language*, New York/Cincinnati/Chicago: American Book Company.

Lehmann, C. (1984). *Der Relativsatz*. Tübingen: Gunter Narr Verlag.

Lehmann, W. (1974), *Proto-Indo-European Syntax*, Austin/London: University of Texas Press.

(1986), *A Gothic Etymological dictionary*, Leiden: Brill.

Leujeune, M. (1987), *Phonétique historique du mycénien et du grec ancient*, Paris: Klincksieck.

Leumann, M.- Szantyr, A. Otto, W. (1977), *Lateinische Grammatik, Erste Band, Lateinische Laut-und Formen Lehre*, München: C.H.Beck'sche Verlagsbuchhandlung.
Levinson, S. (1983), *Pragmatics*, Cambridge, CUP.

Liddel, H. G.- Scott, R. (1846), *A Greek-English Lexicon*, with a new supplement added (1996), Oxford: OUP.

Ligorio, O.- Lubotsky, A. (2018), *Phrygian*. In J. Klein et. al., *Handbook of Comparative and Historical Indo-European Linguistics*, vol. 3, Berlin-Boston: De Gruyter Mouton. pp. 1816-1831.

Lillo, A. (1991), "Ionic κώς, ὅκως, ὅπως, Thessalian κις: a phonetic problem of analyzable compounds", Glotta 69 : 1-13.

(1992), "On the non-copulative *qe* in Mycenaean, E. de Miro - L. Godart -A. Sacconi (eds*.) Atti e Memorie del Secondo Congresso Internazionale di Micenologia*. Roma, Gurppo Editoriale Internazionale. pp. 315-19.

López-Chala, E. (2017) *La desinencia "*-b^hi" en indoeuropeo: análisis semántico y* functional, Tesis doctoral. Universidad Complutense de Madrid.

López-Chala, Á.- Luján-Martínez, E. (*in press*) "Reconstructing Semantic Roles: Proto-Indo-European*-$b^h i$ as a Case Study", Reconstructing Syntax.

Lühr, R. (1976), "Die Wörter für 'oder' in den germanischen Sprachen", MSS, 34, 77–94.

Luján, E. R. (2009), "On the grammaticalization of *k^wi-/k^wo- relative clauses in Proto-Indo-European". In V. Bubeník, J. Hewson, and S. Rose (eds), *Grammatical change in Indo-European languages*. Amsterdam: John Benjamins Publishing Company. pp. 221–34.

Luján, E. (1995) “Los usos no numerales de las palabras para "uno" y la raíz indoeuropea *sem-”, Cuadernos de Filología Clásica: Estudios griegos e indoeuropeos 5, 215-230.

Lundquist, J. - Yates, A. D. (2018), “The morphology of Proto-Indo-European”, in J. Klein et. al., *Handbook of Comparative and Historical Indo-European Linguistics*, vol. 3, Berlin-Boston: De Gruyter Mouton. pp. 2079-2195.

Luraghi, S. (1997), *Hittite*, München-Newcastle: Lincom Europa.

(2001) “Syncretism and the classification of semantic roles”, STUF, 54, 1, 35-51.

(2015) “Instrument and Cause in the Indo-European languages and in Proto-Indo-European”. In ИНДОЕВРОПЕЙСКОЕ ЯЗЫКОЗНАНИЕ И КЛАССИЧЕСКАЯ ФИЛОЛОГИЯ –St. Petersburg, Nauka, 2015, 603-618.

Macdonell, A. A. (1910), *Vedic grammar*, Strassburg : Karl J.Trübner.

(1926), *A Sanskrit grammar of students*, New Delhi: D. K. Printworld (P) Ltd.

MacKenzie, D. N. (1971), *A concise Pahlavi dictionary*, Oxford: OUP.

McAlpin, D. W. (1974), *Toward Proto-Elamo-Dravidian*, Language, 50, 89-101.

McAlpin, D. W. -M. B. Emeneau-W. H. Jacobsen Jr.- F. B. J. Kuiper- H. H. Paper-E. Reiner, R. Stopa-F. Vallat- R. W. Wescott, (1975), “Elamite and Dravidian: Further Evidence of Relationship [and Comments and Reply]”, Current Anthropology, Vol. 16, No. 1 (Mar., 1975), 105-115.

Martyrosian, H. K. (2010), *Etymological dictionary of the Armenian inherited lexicon*, Leiden/Boston: Brill.

(2013) “The place of Armenian in the Indo-European language family”, Journal of Language Relationship • Вопросы языкового родства,10, pp. 85-137.

Matasović, R. (2009), *Etymological dictionary of Proto-Celtic*, Leiden/Boston: Brill.

Matzel, K. (1982-3), “Zum gotischen Interrogativ- und Indefinitpronomen *ho*”, Zeitschrift für vergleichende Sprachforschung, 96. Bd., 1. H, 119-126.

Mayrhofer, M. (1992-6), *Etymologisches Wörterbuch des Altindoarischen*, Bn. 1-2, Heidelberg : C. Winter.

Mazzon, G. (2004), *A history of English negation*, London-New York: Routledge.

von Meier-Brügger, M. (1975) ίδ Zur Geschichte eines griechischen Nominalsuffixes Gottingen: Vandenhoeck & Ruprecht

(1992), *Griechische Sprachwissenschaft. 1, Bibliographie, einleitung, syntax*, Berlin: de Gruyter.

Meillet, A. (1916), "Vieux slave *tъžde* et *ašte*", MSL 20: 108-10.

Melchert, C. (1994), *Anatolian Historical Phonology*, Amsterdam/Atlanta GA: Rodopi.

Melchert, C.- Oettinger, N. (2009) "Ablativ und Instrumental im Hethitischen und Indogermanischen". Incontri Linguistici 32: 53−73.

Méndez Dosuna, J. (2018), "The Language of the Dodona Oracular Tablets: The Non-Doric Inquiries". In Giannakis, G. K.- E. Crespo- P. Filos, *Studies in Ancient Greek Dialects*, Berlin/Boston: de Gruyter. pp. 265-296.

Meriggi, P. (1955), *Glossario miceneo (minoico B)*, Torino: Accademia delle Scienze,

Meyer, R. (2013), *Classical Armenian Relative Clause Syntax, A comparative study of relative clauses in the Armenian and Greek NT and other 5th-c. Armenian texts*, Faculty of Linguistics, Philology & Phonetics, University of Oxford.

Miestamo, M. (2005), *Standard negation: the negation of declarative verbal main clauses in a typological perspective*, Berlin: Mouton de Gruyter.

(2007), *Negation- An overview of typological research*, Language and Linguistic Compass 1/5, 552-570.

(2011), *Symetric and Asymetric Standard Negation*. In Dryer, M and Martin Haspelmath (eds), *The World Atlas of Language Structures Online*. München: Max Planck Digital Library.

Miller, J. L. (2013), *Royal Hittite instructions and related administrative texts*, Atlanta: Society of Biblical Literature.

Minard, A. (1937), *Deux relatifs homériques* (Thèse complémentaire présentée à la Faculté des Lettres de l'Université de Paris). Paris: Klincksieck.

Monro, D. B. (1891), *A grammar of the Homeric dialect*, Oxford: Clarendon Press.

Monteil, P (1992) [2003], *Elementos de fonética y morfología del latín*, traducción de C. Fernández Martínez, Sevilla: Universidad de Sevilla

Moorhouse, A. C. (1959), *Studies in the Greek Negatives*, Cardiff: University of Wales Press.

Morpurgo Davies, A., *Mycenaeae graecitatis lexicon*, Roma : Athenaei.

Muchnová, D. (2014), "Negation". In Georgios Giannakis and al. (eds.), *Encyclopedia of Ancient Greek Language and Linguistics*. Leiden: Brill. pp. 484-491.

Muraoka, T. -Porten, B. (1998), *A grammar of Egyptian Aramaic*, Leiden/New York/Köln: Brill.

Muysken, P. (1997), *Media lengua*, in S. Thomason (ed), *Contact languages: a wider perspective*, Amsterdam: John Benjamins Publishing Company, pp. 365-426.

Nandris, G. (1965), *Handbook of Old Church Slavonic: part 1. Old Church Slavonic Grammar*, London : University of London : The Athlone Press.
Narrog, H. (2009), "Varieties of instrumental", in Malchukov, A- A. Spencer (eds.), The Oxford handbook of Case, Oxford: OUP, pp 593-600.

Narrog, H- Ito Sh. (2007), "Re-constructing semantic maps: the comitative-instrumental área", STUF 60, 4, 273–292.

Nieto Izquierdo, E. (2008), *Gramática de las inscripciones de la Argólide*, PhD. dissertation, Complutense University of Madrid.

Nyberg, H. (1974), *A Manual of Pahlavi*, volume 2, Wiesbaden: 1974.

Oettinger, N. (1983), "Altavestisch *yas ... cišcā* 'jeder, der'", MSS 42, 177-186.

Οἰκονομίδου, Δ. Η. (1958), Γραμματικὴ τῆς Ἑλληνικῆς διαλέκτου τοῦ Πόντου, Ἀθήνα.

Olsen, B. (2017), "The morphology of Armenian", In Klein et al., *Handbook of Comparative and Historical Indo-European Linguistics,* vol. 2, Berlin/Boston: De Gruyter Mouton, pp.1080-1097.

Özkan, H. (2013), "The Pontic Greek spoken by Muslims in the villages of Beşköy in the province of present-day Trabzon", Byzantine and Modern Greek studies, 37, 1, 1-21.

Palmer, F. R. (1986), *Mood and Modality*, Cambridge, CUP.

Paper, H. H. (1955), *The phonology and morphology of Royal Achaemenid Elamite*, Ann Arbor: The University of Michigan Press.

Payne, A. (2010), *Hieroglyphic Luwian, an introduction with original tex*ts, Wiesbaden: Harrossowitz Verlg.

Payne, J. R. (1985), *Negation*, in T. Shopen (ed.) *Language Typology and Syntactic description*. *Vol. 1: Clause Structure*, Cambridge: CUP, 197-242.

(1985b) Negative coordination, in T. Shopen (ed.) *Language Typology and Syntactic description*. *Vol. 1: Clause Structure*, Cambridge: CUP, 3-41.

Pinault, G-J. (2008), *Chrestomathie Tokharienne, Textes et Grammaire*, Louven/Paris: Peeters.

Penka, D. (2011), *Negative Indefinites*, Oxford: OUP.

(2015), *Negation and Polarity*, in Riemer, Nick (ed.), *Routledge Handbook of Semantics*, London: Routledge. 303-319

Penka, D - Zeijlstra, H. (2010), *Negation and Polarity: an introduction*. Natural Language and Linguistic Theory 28: 771-786.

Pinkler, L. M. (1986), *Introducción al estudio de la partículas*, Buenos Aires: Biblos.

Pinkster, H. (2015), *The Oxford Latin Syntax*, *volume 1*, *The Simple Clause*, Oxford: OUP.

Piquero, J. (2017), *El léxico del griego micénico (LGM): "Index graecitatis," estudio y actualización bibliográfica*, Tesis doctoral. Universidad Complutense de Madrid.

Plötz, O. (2017), *The (PIE?) prohibitive particle *mē: soft approaches*, 3rd Indo-European Research Colloquium, Vienna (April 20-21, 2017).

Pokorny, J. (1959), *Indogermanisches Etymologisches Wörterbuch*, Bern: Francke.
Probert, P. (2015), *Early Greek relative clauses*, Oxford: OUP.

Puhvel, J. (1997), *Hittite etymological dictionary*, vol. 4, words beginning with K, Berlin/New York: Mouton de Gruyter.

(2007) *Hittite etymological dictionary*, vol. 7, words beginning with N, Berlin/New York: Mouton de Gruyter

Quintana, E. (2010), *Gramática de la lengua elamita*, Madrid: Visión Libros.

Redondo, H. (2017) Multifuncionalidad y polisemia: descripci.n sint.ctica, semántica y pragmática del griego οὐδέ, Emerita, Revista de Lingüística y Filología Clásica, LXXXVI 2, 2018. pp. 303-326.

Reichelt, H. (1978), *Awestisches Elementarbuch*, Heidelberg : Carl Winter.

Reiner, E. (1960), "Calques sur le vieux-perse en élamite achéménide", BSLP, 55, 222-7.

(1969), *The Elamite Language*, in *Altkleinasiatische Sprachen*, Leiden-Köln: Brill.

Renou, L. (1948), "Sur la phrase négative dans le Rigveda." Bulletin de la société linguistique de Paris, XLIII, 43-49.

(1952), *Grammaire de la langue védique*, Paris: IAC.

Repp, S. (2009), *Negation in gapping*, Oxford, OUP.

Rix, H. (1976), *Historische Grammatik des Griechischen*: Laut- und Formenlehre, Darmstadt: Wissenschaftliche Buchgesellschaft.

Roberts, I.- A. Roussou, A. (2003), *Syntactic change: a minimalist approach to grammaticalization*, Cambridge: CUP.

Rollinger, R. (2016), *Royal Strategies of Representation and the Language(s) of Power: Some Considerations on the audience and the dissemination of the Achaemenid Royal Inscriptions*, in: S. Procházka et al. (eds), *Official Epistolography and the Language(s) of Power*. Vienna: ÖAW. 117-130.

van Roy, R. (2016), "The Relevance of Evidentiality for Ancient Greek: Some Explorative Steps through Plato", Journal of Greek Linguistics, 16, 3-46.

Ruijgh, C. J. (1971), *Autour de "Te épique" : études sur la syntaxe grecque*, Amsterdam : Hakkert.

Sadock, J. M. - Zwicky, A. M. (1985) "Speech Acts Distinctions in Syntax". In Shopen, Timothy (ed.), *Language Typology and Syntactic Description*, Cambridge: CUP. pp. 155-196.

Salgarella, E. (2014), *The use of the particle -qe in Mycenaean Greek*, MPhil unpublished dissertation (2014), University of Cambridge.

Schmitt, G. (1988), "Lateinisch *tum*, *tam*, *quīdam* und Verwandtes", MSS 49: 121-141.

Schmitt, R. (1991), *Corpus Inscriptionum Iranicarum. Part I, Inscriptions of Ancient Iran. Vol. I, The Old Persian Inscriptions. Texts I, The Bisitun Inscriptions of Darius the Great: Old Persian Text*, London: published on behalf of Corpus Inscriptionum Iranicarum by School of Oriental and African Studies.

(2009), *Die altpersischen Inschriften der Achaimeniden*, Wiesbaden: Reichert.

(2014), *Wörterbuch der altpersischen Königsinschriften*, Wiesbaden: Reichert.

Schwyzer, E. (1934-1950), *Griechische Grammatik*, Band 1: *Allgemeiner Teil, Lautlehre, Wortbildung, Flexion*. 1934/1939, Band 2: *Syntax und syntaktische Stilistik*. 1950, München: C.H. Beck'sche Verlagsbuchhandlung.

Sihler, A. L. (1995), *New Comparative Grammar of Greek and Latin*, Oxford: OUP.

Sideltsev, A. (2015), *Indo-Hittite Syntax?* Workshop, The Precursors of Proto-Indo-European. Indo-Hittite and Indo-Uralic Hypotheses, Leiden University, 9 July 2015.

Sideltsev, A. - I. Yakubovich, (2016), *The origin of Lycian indefinites pronouns and its phonological implications*, MSS, 755-124.

Skjærvø, P. O. (2009a), *Old Iranian*, in G. Windfuhr (ed.) *The Iranian Languages*, London / New York: Routledge. 43- 195.

(2009b), *Middle West Iranian*, in G. Windfuhr (ed.) *The Iranian Languages*, London – New York: Routledge. 196-278.

(2016), *An introduction to Old Persian*, Copyright © 2016 by Prods Oktor Skjærvø.

(2017), *The morphology of Iranian*, in J. Klein et. al., *Handbook of Comparative and Historical Indo-European Linguistics*, volume 1, Berlin-Boston: De Gruyter Mouton. 503-549.

Smyth, H. W. (1920), *Greek Grammar*, Cambridge, MA: Harvard University Press.

Speijer, J. S. (1886), *Sanskrit Synta*x, Leiden: Brill.

Schrijver, P. (1991), *Reflexes of Proto-Indo-European Laryngeals in Latin*, Amsterdam/Atlanta GA: Rodopi.

Steele, S. (1975). *Some factors that affect and effect word order*. In Charles N. Li (ed.) *Word order and word order change*, Austin: University of Texas Press. pp.199-267.

Stolper, M. W. (2004), *Elamite,* in R. D. Woodard (ed.), *The Cambridge encyclopedia of the world's ancient languages*, Cambridge: Cambridge University Press. 60-94.

(2005), "Achaemenid Languages and Inscriptions," in Forgotten Empire: the World of Ancient Persia, ed. by John Curtis and Nigel Tallis. London: British Museum Press. pp. 18-24.

Streitberg, W. (1971), *Die Gotische Bibel*, Heidelberg: Carl Winter Uniersitätsverlag.

de Swart, H. (2001), *Négation et coordination : la conjonction ni*. In R. Bok- Bennema, R. de Jonge, B. Kampers-Manhe et A. Molendijk (eds), *Adverbial modification*, Amsterdam, Rodopi, pp. 109-124.

(2010), *Expression and interpretation of negation: An OT typology*, New York: Springer.

Striano, A. (1989), *El dialecto laconio, gramática y estudio dialectal*, PhD dissertation, Universidad Autónoma de Madrid.

Szabolcsi, A. -Haddican, B (2004), "Conjunction meets negation: a study on cross-linguistic variation", Journal of Semantics, 21, 219-249.

Tavernier, J. (2007a), *Iranica in the Achaemenid period (ca. 550-330 B.C.). Lexicon of Old Iranian proper names and loanwords, attested in non-Iranian texts*, Leuven: (Orientalia Lovaniensia Analecta 158).

(2007b), "The Case of Elamite Tep -/ Tip - and Akkadian *ṭuppu*" Iran, 45, 1, 55-69.

(2008), *Multilingualism in the Fortification and Treasury Archives*, in: *L'archive des Fortifications de Persépolis. État des questions et perspectives de recherches*, eds. P. Briant, W.F.M. Henkelman, M.W. Stolper. Paris 2008, pp. 59-86.

(2011a), *Iranians in Neo-Elamite texts*, in J. Álvarez-Mon-N. B. Garrison (eds), *Elam and Persia*, Winona Lake: Eisenbrauns. 191-261.

(2011b), "Élamite: analyse grammaticale et lecture de textes", Res Antiquae 8, 315-350.

(2018a), *The Elamite Language*, in J. Álvarez-Mon, G.P. Basello, Y. Wicks (eds), *The Elamite World*, London-New York: Routledge. 416-449.

(2018b), *Multilingualism in the Elamite Kingdoms and the Achaemenid Empire*, in Jens Braarvig and Markham J. Geller (eds): *Studies in Multilingualism, Lingua Franca and Lingua Sacra*, Max Planck Research Library for the History and Development of Knowledge - Studies 10. 307-319.

Threatte, L. (1996), *The grammar of Attic inscriptions*. Vol. 2, Morphology, Berlin : W. de Gruyter.

Tichy, E. (2006), *Der Konjunktiv und seine Nachbarkategorien. Studien zum indogermanischen Verbum, ausgehend von der älteren vedischen Prosa*. Bremen: Hempen.

Tischler, J. (1983), *Hethitisches Etymologisches Glossar,* teil I*,* a-k, Innsbruk: Innsbrucker Beiträge zur Sprachwissenschaft.

TITUS: *Thesaurus Indogermanischer Text- und Sprachmaterialien*. Thesaurus of Indo-European texts and languages.

TLG*: Thesaurus Linguae Graecae*. A digital library of Greek Literature.

Tovar, A. (1946), Gramática Histórica Latina, Sintaxis, Madrid: [Afrodisio Aguado].

Untermann, J. (2000), *Wörterbuch des Oskisch-Umbrischen*, Heidelberg: Carl Winter Universitätsverlag.

Urquizu, P. (2013), *Gramática de la lengua vasca*, Madrid: Universidad Nacional de Educación a Distancia.

Vallat, F. (1977), *Corpus des inscriptions royales en Elamite Achemenide*, thèse presentée pour la obtention du doctorat, Paris.

(1987), "^{d}U = élamite usan/iššan", NABU, 89.

de Vaan, M., *The Avestan vowels*, Amsterdam/New York: Rodopi.

de Vaan, M.-J. Martínez (2014), *Introduction to Avestan*, Leiden: Brill.

Van Gelderen, E. (2009), *Cyclical Change*, Amsterdam/Philadelphia: John Benjamins Publishing Company.

(2011), *The Linguistic Cycle: Language Change and the Language Faculty*, Oxford: OUP.

Van der Auwera, J. (2001), *On the typology of negative modals*. In Hoeksema, Jack-Hotze Rullmann- Víctor Sánchez-Valencia -Ton van der Wouden (eds), *Perspectives on Negation and Polarity Items*, Amsterdam/Philadelphia: John Benjamins Publishing Company.

(2009), *The Jespersen cycles*. In E. Van Gelderen (ed), *Cyclical Change*, Amsterdam/Philadelphia: John Benjamins Publishing Company.

Van der Auwera, J. - L. Leujeune (2011), *The Prohibitive*. In Dryer, M and Martin Haspelmath (eds), *The World Atlas of Language Structures Online*. München: Max Planck Digital Library.

Van der Auwera, J - L. Van Alsenoy (2018), "More ado about nothing - On the typology of negative indefinites", Pragmatics, truth and underspecification: towards an atlas of meaning. Ed. by K. Turner & L.R. Horn Leiden: Brill, pp. 107-146.

Van de Hout, Th. (2011), *The elements of Hittite*, Cambridge: CUP.

Varias García, C. (2008), "Observations on the Mycenaean Vocabulary of Furniture and Vessels". In *Colloquium Romanum. Atti del XII Colloquio internazionale di micenologia, Roma 20-25 febbraio 2006 (Pasiphae 1-2)*, A. Sacconi – M. Del Freo – L. Godart – M. Negri (eds.), Pisa – Roma 2008. 775-793.

Vine, B. (2017), "The morphology of Italic", in in J. Klein et. al., *Handbook of Comparative and Historical Indo-European Linguistics*, volume 2, Berlin-Boston: De Gruyter Mouton, pp. 750-804.

Vitti, C. (2008), "The phylogenesis of hypotaxis in Vedic". Diachronica 25:3, 386-409.

Vries, M. de. (2002), *The syntax of relativisation*. PhD dissertation, Universiteit van Amsterdam.

Weissbach, F. H. (1911), *Die Keilinschriften der Achämeniden*, Leipzig: J. C. Hinrichs.

Wackernagel, J. (1896-1930), *Altindische Grammat*ik. Bd.I, Lautlehre, Bd.II, 1, Einleitung zur Wortlehre : Nominalkomposition, Bd.II, 2, Nominalsuffixe, Bd. III, Nominalflexion, Zahlwort, Pronomen, Göttingen : Vandenhoeck & Ruprecht.

(1942), "Indogermanisch *-*que* als alte nebensatzeinleitende Konjunktion", KZ 67: 1-5.

(1920) [2009)], *Lectures on Syntax: with special reference to Greek, Latin and Germanic*, Oxford, OUP, after *Vorlesungen über Syntax mit besonderer Berücksichtigung von Griechisch, Lateinisch und Deutsch*. Bd. I—2, Basel 1920–1924.

Watkins, C. (1963), "Preliminaries to a Historical and Comparative Analysis of the Syntax of the Old Irish Verb", Celtica 6, 1-49.

(1985), *Indo-European -k^{w}e "and" in Hittite*, in H. M: Olberg- G. Schmidt (eds), *Sprachwissenschaftliche Forschungen. Festschrift für Johann Knobloch zum 65 Geburtstag am 5 Januar 1984 dargebracht von Freunden und Kollegen. IBK 23*, Innsbruck, AMOE. 491-7.

Preliminaries to a Historical and Comparative Analysis of the Syntax of the Old Irish Verb, Celtica 6, 1-49.

Weiss, M. (2009), *Outline of the Historical and Comparative Grammar of Latin*, Ann Arbor/New York: Beech Stave Press.

Weissbach, F. H. (1911), *Die Keilinschriften der Achameniden* (VAB 3), Leipzig.

Weitenberg (1992), "The Uses of Asyndesis and Particles in Old Hittite Simple Sentences", in O Carruba (ed.), *Per Una Grammatica Ittita, Towards a Hittite Grammar*, Pavía: Studia Mediterranea 7, pp. 305-353.

West, M. (2011), *Old Avestan syntax and stylistics: with an edition of the texts*, Berlin/Boston: De Gruyter.

Widmer, P. (2005) "Der altindische *vr̥kī*-Typus and hethitisch nakkī: Der indogermanische Instrumental zwischen Syntax und Morphologie". Die Sprache 45: 190−208.

Willi, A. (2017), *The origins of the Greek verb*, Cambridge: CUP.

Willmott, J. (2007), *The moods of Homeric Greek*, Cambridge: CUP.

(2011) "Outis and what he can tell us about negation in Homeric Greek". In Paul Millett-S. P. Oakley-R. J. E. Thompson (eds), *Ratio Et Res Ipsa*: Classical Essays Presented By Former Pupils To James Diggle On His Retirement, Cambridge, CUP.

(2013), Negation in the History of Greek. In Willis, D.-C. Lucas- A. Breitbarth (eds.), *The History of Negation in the Languages of Europe and the Mediterranean*, volume 1, Oxford, OUP. pp. 299-340.

Whitney, W. D. (1896), *A Sanskrit grammar*, Leipzig: Breitkopf & Härtel.

Wright, J. (1910) [1966], *A grammar of the Gothic language*, Oxford: Clarendon Press.

Williams Jackson, A. V. (1892), *An Avesta Grammar*, part I, phonology, inflection, word formation, Suttgart: W. Kohlhammer.

Windford, D (2003), *An Introduction to Contact Linguistics*, Oxford: Oxford University Press.

Windfuhr, G. (2009) “Dialectology and topics”, in G. Windfuhr (ed.) *The Iranian Languages*, London/New York: Routledge, pp. 5-42.

van der Wouden, T. (1997), *Negative Contexts. Collocation*. Polarity and Multiple Negation. Routledgc. London.

Yates, A. (2014), “Luwian ‘Indeterminate’ Relative Clauses and their Prehistory”. Paper
presented at the Harvard GSAS Workshop, 12 November 2014.

Yoshida, Y. (2009), “Sogdian”, In G. Windfuhr (ed.), *The Iranian Languages*, London – New York: Routledge. pp. 279-335.

Zadok, R. (1995), “On the Current State of Elamite Lexicography”, SEL 12, 241-252.

Zanuttini, R. (1991)*, Syntactic Properties of Sentential Negation:AComparative Study of Romance Languages*. PhD dissertation, University of Pennsylvania.

Zeijlstra, H. (2004), *Sentential Negation and Negative Concord*. PhD Dissertation University of Amsterdam. Utrecht: LOT Publications.

Zwarts, F. (1996). “Three Types of Polarity.” In, Fritz Hamm and Edward W. Hinrichs (eds), *Plural Quantification* , Dordrecht: Kluwer. pp. 177–238.

Zhang, N. N. (2010), *Coordination in Syntax*, Cambridge, CUP.